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September 4, 1978

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MEXICAN VETERINARIANS STUDY ALBERTA DAIRY INDUSTRY

Dr. Laura Imelda Orozco and Dr. Angeles Baez,
two Mexican veterinarian who are study Alberta's dairy industry.

"We wish we could stay longer. Alberta is so big we will only be able to see a fraction of what we would like to see." This was one of the first reactions of two Mexican veterinarians who are spending a month studying Alberta's dairy industry.

They are Dr. Laura Imelda Orozco and Dr. Angeles Baez who have been given leave from their government jobs in central Mexico to come to Alberta. While here they will visit dairy farms in the Edmonton, Calgary and Lethbridge regions to learn about milk production at the farm level. Then they plan to visit Alberta Agriculture dairy specialists to study the province's record of performance program, milk quality control program and dairy health and sanitation program. They also hope to visit a milk processing plant before returning to Mexico about the middle of September.

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Mexican Veterinarians Study Alberta Dairy Industry (cont'd)

When asked why they chose to come to Alberta, Dr. Orozco said it was because of the contacts she had made with Alberta dairymen at the annual cattle show that is held at Guadalajara in central Mexico every October. A further incentive, she added, was the very good success Mexicans have had with the cattle they have imported from Alberta. Incidentially, the veterinarians are keeping their eyes open for Holstein heifers while they are here. Mexico apparently imports thousands of dairy heifers each year, a few of which come from Ontario, but the majority come from the United States.

The Mexicans also import a large volume of semen from Canada which they use extensively in the milk producing area of central Mexico. Here one of the rural development banks sponsors a dairy heifer replacement program as a service to its customers.

Officials employed by the bank go round the dairy farms in the Mexico City milk-shed and buy up two-day old dairy heifers from cows that were sired by artificial insemination (AI) and which have milk production records. The officials pay about $20 a head for these animals, which are kept for two months in individual pens in an air-conditioned building on a central farm that can accommodate 1,200 head. The pens have slatted floors and are frequently disinfected to keep down disease, especially scours. Death losses are apparently extremely low compared with those in calves kept under ordinary barn conditions in Mexico or in Canada for that matter.

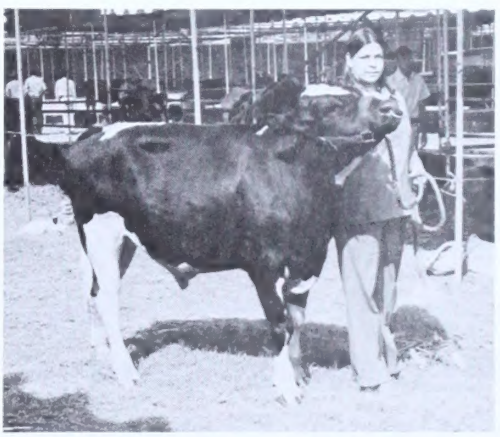
When the heifers are two months old they are put outside in feedlot-type corrals which hold about 50 head. Each group is fed according to the age of the animals. When they reach breeding weight, they are bred by AI and kept until a month before they are due to calve. At this time the original owner is given a chance to buy his heifer back. If he is not interested, she is sold to a dairy farm in the area for about $600, which is more or less at cost.

Central Mexico also has a dairy bull program that is run by the government, and it is here that the two veterinarians work. Under this program, the Mexican department of agriculture

- (cont'd) -

buys Holstein bull calves, that would otherwise be slaughtered, from high milk producing cows on the better dairy farms in central Mexico. The calves are bought when they are two days old for about $10 a head and reared under the same conditions as the heifers in the dairy heifer replacement program. When the bulls reach breeding age, they are sold to local dairy farmers for between $300 and $400 a head.

Dr. Orozco and Dr. Baez, like their counterparts in the other central Mexican states, are responsible for advertising, showing and selling the bull calves that are raised under the program, called "Rescate Genetico". Its purpose is to rescue the genetic material that would otherwise be lost through the slaughter of these animals. The government veterinarians are also responsible for providing information to the new owners of the bulls on subjects related to sanitation, health and nutrition as well as for checking on the animals to make sure that the buyer is living up to his obligations. Before he is allowed to buy one of these bulls, he has to agree to adopt government-approved standards of management for the bull and for his cow herd.



Dr. Orozco posing with a Holstein bull at a cattle show in central Mexico

Dr. Orozco says that at least 50 per cent of the 2,000 bulls that the government places on dairy farms each year are the sons of Canadian sires which were either imported from Canada or whose semen was imported. The idea is to upgrade Mexico's native cattle, which are resistant to heat and ticks, by crossing them with Holstein bulls. The government hopes that the crossbreds that result from its bull program will combine heat and tick resistance with a considerably higher level of milk production.

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Mexican Veterinarians Study Alberta Dairy Industry (cont'd)

According to Dr. Orozco, AI cannot be used in many parts of Mexico because of communication and transportation problems. "The government bull program," she says, "is very popular, and there is always a long waiting list for these animals."

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FOR IMMEDIATE RELEASE

FORAGE SEED MARKET CONDITIONS

by Don Macyk and Marcel Maisonneuve
of the Alberta Forage Seed Council

The beginning of the new crop year (1978-79) for forage seeds brought with it the very strong likelihood of good prices for most seed kinds.

The carryover of forage seeds in both commercial position and on farms appears to be very low and the current production season does not look as if it will replenish these very low stocks of most forage seed crop kinds to any great extent. The current situation is the result of a two-year period when the disappearance of most forage seed kinds exceeded production and drew down heavily on the large stockpile of forage seeds that existed two years ago.

Fescue

Total supplies of fescue available in Canada will be considerably lower than in recent years as farm stocks are drawn down to low level,s and total production was probably at a record low, at least for the past 10 years. Surveys done in the Peace River region of Alberta and British Columbia by plant industry supervisors of the respective departments of agriculture suggest the total acreage for 1978 production was near 20,000 acres in Alberta and slightly under 8,000 acres in British Columbia, representing a reduction of about 30 per cent in Alberta and 40 per cent in British Columbia. Expectations are currently for a total crop of around 6 million pounds. This very low crop combined with low stock levels in Western Canada will probably mean total supplies for the 1978-79 crop year of under 18 million pounds compared with a year earlier when total supplies exceeded 30 million pounds.

Production of fescues in Oregon is reported to be lower than earlier expectations, but final production estimates have yet to be completed. European production is reported to be suffering from cool and wet weather, but again, crop estimates are not yet well substantiated.

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Forage Seed Market Conditions (cont'd)

The direct relationship between North American use of turf grasses and housing starts would suggest that demand for the 1978-79 crop year may be slightly softer as housing starts in both Canada and the U.S. are forecast to decline by nearly 10 per cent. However, total available supplies of turf grasses are expected to remain low in comparison to recent years and a strong but probably volatile market will likely prevail for the new crop year.

Clovers

Clover market prospects remain very vulnerable to this year's total crop as stocks are reasonably tight after a very good export year. Alsike clover is in the weakest position as the market activity is relatively dull, and, of all the clovers, the carryover of alsike is the highest. Single-cut red clover prospects appear reasonably good though much of this year's price prospects rest with the response to the U.S. set-aside programs for wheat and feed grains. Last year's response to the set-aside programs did not result in as large a disappearance of red and sweet clovers as was expected. A U.S. set-aside program similar to that of last year was announced for wheat and will likely result in the greater use of clovers for cover cropping purposes since response to the set-aside program is expected to be higher than last year and the program appears to be taking on a more permanent status.

Timothy

The new crop year brought with it a sudden falling out of market prospects, and prices tumbled from their recent highs of 50¢ and 60¢ a pound for common down to the 20¢ to 30¢ a pound range. Timothy seed production in Manitoba and in several U.S. producing areas appear to have replenished the timothy pipeline, at least for the short-term. Prior to the new crop production, timothy supplies were pretty well completely cleaned up for both commercial and certified seed. The ability of new crop supplies to meet this year's demand remains to be seen, but, for the time being, and until supplies begin moving, price prospects appear disappointingly soft.

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Forage Seed Market Conditions (cont'd)

Alfalfa Seed

The alfalfa seed market appears reasonably strong, especially for winter-hardy varieties, which are in very low supply. This year's crop prospects remain uncertain as yet. The alfalfa seed crop in southern Alberta looks good but is late and has had greater than usual pest problems. Demand for alfalfa seed is expected to remain strong, especially the winter-hardy varieties.

Canadian Forage Seed Exports

Exports of grass seeds during the 1977-78 crop year have kept pace with the high levels of exports attained a year earlier. Creeping red fescue has maintained a good volume movement to the U.S., while timothy and brome exports to all destinations were close to year earlier levels, even though total supplies were much tigher than a year earlier. Exports of all clover seeds, especially to the U.S.A., have maintained the high levels of the previous crop year as clovers make up a sizeable proportion of acres devoted to set-aside programs in the U.S.

Overall, forage seed exports for the 1977-78 crop year maintained their strong pace and continued to draw down stocks of most grass and clover seeds.

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FOR IMMEDIATE RELEASE

SUBSOILING AS A METHOD OF RECLAIMING SOLONETZIC SOILS

Interest in ripping or deep subsoiling (12" to 20") as a method of reclaiming solonetzic soil is increasing, and much of the recent subsoiling has been done in the hopes of achieving results similar to those obtained from successful deep plowing experiments.

John Hermans of Alberta Agriculture's soils branch points out that because very little research has been carried out on subsoiling, farmers should be aware of all the possible effects, both beneficial and non-beneficial, before embarking on this technique on a large scale. He lists the following points as worthy of consideration.

- One of the main principles of deep plowing is to mix the sodic claypan with calcium in the lime salt layer. Does the ripper accomplish this as well as a deep plow?
- Does it bring up enough calcium?
- How long will the beneficial effects of the ripper last? Will the sodic claypan reform quickly, thereby necessitating subsoiling as a regular treatment?
- Will enough calcium carbonate be brought to the surface to "lime" solonetzic soils that are acidic.
- Does subsoiling result in crop germination problems similar to those experienced with some deep plowing test plots?
- Is ripping more economical than deep plowing in the long run (10 years)?

Since many of these questions still have not been answered, soils branch personnel are establishing test plots in farmers' fields in an attempt to assess the economic feasibility of deep ripping and to compare its effectiveness with that of deep plowing.

Mr. Hermans points out that some solonetzic soils may respond better to ripping than others,and suggests subsoiling only five to 20 acres to begin with. He recommends using a ruler to measure the depth of ripping from the soil surface before it was ripped. It might

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Subsoiling as a Method of Reclaiming Solonetzic Soils (cont'd)

be a good idea to rip at two different depths, (i.e. 8" and 20"), but be sure to mark each depth carefully because they will be difficult to identify later.

Next, establish a check strip of sufficient size beside the test area. Take yield measurements very carefully so that you can compare the productivity of the two areas as accurately as possible. If you want to compare a subsoiling plot with a previously established deep plowing plot, leave a five to 10-acre check strip between the two.

Mr. Hermans says solonetzic soils that are likely to respond best to ripping are those that are already naturally improving. Such soils are probably in well-drained, upslope positions. As with deep plowing, saline and other low, wet areas should be avoided.

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September 4, 1978

FOR IMMEDIATE RELEASE

SOIL CEMENT FOR BUNKER SILO FLOORS

With the increasing use of silage and bunker silos, the number of complaints about difficulties encountered when emptying these silos during the spring breakup and other wet periods has also increased.

Installing a concrete floor in the silo is one solution to these problems, but the cost of this installation puts it beyond the reach of most farmers. An alternative suggested by Gary Wendel, Alberta Agriculture's regional engineer at Barrhead, is to use soil cement for the floor. He says it normally costs from a third to half as much as ready mix concrete. He also says that it has been used in Manitoba with reasonable success.

The procedure is as follows:

- Remove the top soil from the entire floor area of the silo. This can be done with the blade on a cat or with a road grader. To avoid drainage problems, the ground should have a natural slope towards one end of the bunker.
- Haul in sand or gravel and distribute it evenly over the floor area to a depth of approximately six inches
- Spread cement over the area evenly at a rate of approximately five pounds per square foot. Then work it evenly into the six-inch layer of sand or gravel with a rototiller. The more uniform the mixing is, the better the soil cement will be.
- Add water to get the proper consistency over the entire area and then pack it. A large farm tractor is one piece of equipment that works quite well for packing.

Mr. Wendel says a soil cement silo floor was installed in the Westlock area this summer, and that its durability will be evaluated over the next few years. He also says that the life expectancy of soil cement is still unknown because it has only been used for a few years

Contact your regional agricultural engineer for additional information.

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GRAIN DRYER PERFORMANCE

by Dave Scott
Systems Engineer with Alberta Agriculture

The goal of any grain drying operation is to dry grain as quickly as possible at a low cost without damaging the grain.

Both the drying rate and the drying costs for a particular dryer type and size are influenced by many factors. These include the outside air temperature, the outside relative humidity, the drying temperature, the dryer air-flow rate, the initial and final moisture contents of the grain and the type of grain. Here are a few facts to keep in mind about the effects each of these has upon the performance and cost of a drying operation.

Outside Air Temperature

Drying rates will be higher and fuel costs will be lower with a higher outside air temperature because less heat is required to raise the temperature of both the outside air and the grain to the drying temperature.

Outside Relative Humidity

The relative humidity is important only if the outside temperature is high and the drying temperature is low. High relative humidities result in lower drying rates, and, therefore, higher drying costs.

Drying Temperature

Higher drying temperatures cause a significant increase in the drying rate, which will result in lower drying costs. The cost per bushel for the burner fuel will increase slightly, but the cost of labor and fuel for the fan will decrease substantially. Grain temperatures should be monitored to prevent overheating and damage to grain.

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Grain Dryer Performance (cont'd)

Air-Flow Rate

Higher air-flow rates result in higher drying rates. However, at extremely high air-flow rates, the drying rate levels off because there is a limit to the rate at which water can leave the grain kernel. Lowest costs are obtained at high drying temperatures and relatively low air-flow rates or at low drying temperatures and relatively high air-flow rates.

Grain Moisture Content

Drying costs are lower and drying rates are higher for grain with a low initial moisture content.

Based on the above facts, you should be drying grain when outside conditions are favorable for harvesting (i.e. hot and dry) instead of using the grain dryer as an emergency measure during poor weather. You should also use the highest acceptable drying temperature to dry the grain as quickly as possible. If your grain is very damp, between 25 and 30 per cent moisture, you could probably increase the drying temperature by 10° to 20° C above normal or, if possible, increase the air-flow rate for the first hour or two. Cool your grain for only a short period of time during cool, moist conditions because you run the risk of adding moisture to the grain.

Although costs may be reduced and drying rates may be increased by using high drying temperatures, consideration should be given to the effects on grain quality. Moisture gradients within the layers of grain increase with high drying temperatures, especially if you have a dryer which produces a low air-flow rate. These gradients may result in the overdrying of some grain, while other grain will not dry enough to prevent spoilage. High drying temperatures may also cause heat damage or stress cracks in the grain.

Further information on grain dryer performance and costs can be obtained from the Systems Engineering Branch, Agricultural Building, 9718 - 107 Street, Edmonton, Alberta, T5K 2C8.

September 4, 1978

FOR IMMEDIATE RELEASE

CANFARM SERVICE AGENCY TO BE DISCONTINUED

It has been announced in Ottawa that the federal part of the Canfarm program, the Canfarm Service Agency, will be discontinued on March 31, 1979.

However, the agency will continue to service its clients until that time, and farmers and contact agencies are advised to continue to submit data. Farm records, farm planning and data bank material will be processed in the normal manner.

It is uncertain at this time what may happen in the near future, but every effort will be made to develop other arrangements so that the valuable farm management services being provided by the Canfarm Program for farmers and agriculture across Canada can be continued.

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CORRECTION:

The eleventh paragraph of the article "MMA Complex in Sows" (August 21 issue of Agri-News) should read: "The ration for sows and gilts just prior to and immediately following farrowing should contain at least 90 kg (not 440 kg) of bran per tonne (not ton) Some veterinarians recommend 90 kg (not 440 kg) of alfalfa meal per tonne (not ton) as well. Dr. Stone . . . . . "

The twelfth paragraph should read: "If constipation occurs with the above ration, the addition of 6 (not 22) to 7 (not 23) kg of potassium chloride per tonne (not ton) of feed will help . . . . . "

September 4, 1978

FOR IMMEDIATE RELEASE

THE COST OF WEEDS IN CROP PRODUCTION

by

Richard Goodwin of Ponoka
winner of Alberta Agriculture's Weed Control Essay Contest

Weeds! If you have them they are going to cost you money one way or another. If you are fortunate enough to be infested with some of the easily killed weeds such as the mustards, stinkweeds, pigweeds, thistles and hemp nettles, then it's going to cost you from $1.50 to $2 per acre to spray them, using 2, 4-D or MCP formulas. If these weeds are not killed by spraying, they could take one-quarter to one-third of your potential crop yield as well as most of the fertilizer you apply to the crop. This loss could be up to 20 bushels per acre and with barley selling at a $1.50 per bushel, this amounts to $30 per acre.

If your weed problem is of a more serious nature featuring such toughies as smartweed, lady's thumb, corn spurry, chickweed or buckwheat, either wild or tartary, then you are going to have to be much more serious with your spraying program. To get these weeds you are going to have to spend $3 to $5 per acre for a MCP-Lorox mix, Banvel, Buctril or maybe Sencor on your barley crop. If you think this is too much to spend on weed control, you could leave them alone and lose anotner one-third to two-thirds of your crop, depending on the infestation. This could be a loss of up to $50 an acre.

Another expense you will have if you are going to use the wettable powders and the high volumes of water needed to kill the tough weeds is that of remodelling your old sprayer. You start with a high volume pump for adequate tank agitation when spraying 10 gallons of water per acre and probably a new set of spray nozzles and maybe larger hoses and fittings so that you have no restrictions between the pump and sprayer nozzles. This conversion can cost up to $300 or you could buy a new sprayer for $2,000.

So now with a cost of around $6 per acre and with some help from the weather, you may have 75 to 80 per cent control of the broad leaf weeds, but what about those wild oats?

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The Cost of Weeds in Crop Production (cont'd)

Well, for a cost of $6 to $8 per acre, you can use a soil incorporated herbicide that may give 50 to 90 per cent control if the weather is right. If it stays very dry you may be throwing your money away, or if you do a poor job of incorporating, the results may be disappointing. This is an expensive operation as two or three extra trips over the field are needed, and this could leave your fields susceptible to erosion, either by wind or rain. This operation would probably cost $3 or $4 an acre. An alternative to incorporating the herbicide in the soil is to use a post-emergence spray when the wild oats are in the two to five-leaf stage. These sprays cost from $6 to $10 per acre, depending on which you choose. With favorable weather you could expect no better than 80 to 90 per cent control.

You may throw up your hands in despair after trying some of these sprays, especially if the weather has not cooperated and you end up with a field full of weeds after spending a large amount of money on sprays. As a last resort you may cut the crop as green feed or silage to kill the weeds. If you go with green feed you are going to lose the whole thing as far as grain goes and you will still need the weather to cooperate or you will end up with something no better than straw.

If you are set up for silage and can use it, then this may be a better choice. However, the crop will have to be cut before the wild oats are headed or some will drop out and reseed the field. Putting up silage is a labor and machinery intensive operation with the costs estimated at $25 to $30 per acre.

So, no matter how you treat them or handle them, weeds are going to cost you money. The only thing to do is to try for maximum yields with proper farming practices and fertilizers, and then spend whatever you must to control the weeds because if you don't, they will take over the crop and you lose all your profit.

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FOR IMMEDIATE RELEASE

SYNTHETIC PYRETHROIDS

Alberta Agriculture's entomologists are testing several synthetic pyrethroids to evaluate their effectiveness in controlling crop and livestock insects.

Michael Dolinski, pest control specialist and entomologist with Alberta Agriculture, says the products that have been tested so far look extremely promising. Their main advantage over conventional pesticides is that they provide very effective control at very low dosages.

"To date three compounds have been tested on red-backed cutworms with very satisfactory results," Mr. Dolinski says.

Last summer experiments were conducted with several products to evaluate their control of houseflies around farm buildings. It was found that one application kept the flies completely under control for 10 to 12 weeks. Some products have also been tested on livestock. Mr. Dolinski reports they look very promising for controlling both horn flies and blackflies on cattle.

He points out, however, that even if all the experimental results with these products turn out as well as expected, it will probably be at least two years before any of them are registered for use on field crops or livestock.

In Britain scientists have developed two pyrethroids, resmethrin and bioresmethrin, which the British Agricultural Research Council describes as outstandingly potent, non persistent

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Synthetic Pyrethroids (cont'd)

and safe. "They are", says the British report, "man-made relatives of a group of naturally occuring insecticides, the pyrethrins, which are found in pyrethrum (daisy-like) flowers. "

The report also says that the pyrethrins are noted for their rapid action, especially against flying insects; for their low toxicity to mammals and for their non-persistent residues in the environment. The British say they do not only have greater insecticidal activity than the natural pyrethrins, but they are also less toxic to mammals. In fact, bioresmethrin has the most favorable rate of mammalian toxicity to insecticidal activity of any known insecticide, natural or synthethic, according to British claims. The report goes on to point out that the toxicity level is so low that this product is safe on or near livestock feeds and in other situations where mammals are exposed to it.

The discoveries of resmethrin and bioresmethrin resulted from a substantial research program devoted to the complex relationships between molecular structure and biological activity.

Resmethrin and bioresmethrin are widely used in aerosol fly sprays for controlling insects in private homes, restaurants, factories, warehouses and aircraft as well as to control garden pests, especially insects such as whitefly. They are being used extensively in commercial greenhouses, to protect stored grain and as a pre-harvest treatment for cash crops.

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ADC LOANS OFFICERS APPOINTED

Lorne C. Ordze, chairman of the board of directors of the Alberta Development Corporation has announced the hiring of the following loans officers.

John G. Arnold who will be responsible for the Evansburg area.

Neil P. Besplug who will be responsible for the Smoky Lake area.

Thomas C. Mueller who will be responsible for the Athabasca area.

Clinton L. Rothrock who will be responsible for the Falher area.

Tom Guidinger who will be responsible for the Spirit River area.

Their main responsibilities will be consulting with farmers and advising them on the sources of financing available and the financial structure most appropriate for their individual operations. The loans officers will also act in a liaison capacity with lenders and local organizations to assist in the interpretation of the Agricultural Development Corporation's (ADC) programs. Applications for assistance from ADC will be analyzed by the loans officers and forwarded to the head office in Camrose for disposition.

John Arnold

Mr. Arnold was raised on a mixed farm in Alberta and was active in 4-H. While attending the University of Alberta, he spent his summers as an assistant agrologist with Alberta Energy and Natural Resources and in promoting the Marchigana breed of cattle in Alberta for the Alberta Marchigana Association. He obtained his B.Sc. (agriculture) in 1978.

Neil Besplug

Mr. Besplug gained several years of agricultural experience on a mixed farm operation in the Lethbridge area as well as from his own cattle herd and horses. He obtained his B.Sc. (agricultural economics) from Montana State University in 1978.

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ADC Loans Officers Appointed (cont'd)

Thomas Mueller

Mr. Mueller was raised on a mixed farm near Warner. While attending university, he spent his summers doing general labor work on mixed farms in the Lethbridge area. He begain his university career in the faculty of accounting at the University of Calgary and completed his B.Com. at the University of Alberta in 1977.

Clinton Rothrock

Mr. Rothrock was raised on a grain farm in the Peace River region of British Columbia and supervised a general farming operation for an agribusiness development firm near Fort St. John. He obtained his B.Sc. (agriculture) from the University of Alberta in 1978.

Tom Guidinger

Mr. Guidinger comes from an area in the southern part of Saskatchewan and has a B.Sc. (agriculture) from the University of Manitoba. He was recently employed by Alberta Agriculture as district agriculturist at Drumheller.

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KOREAN AGRICULTURAL TRADE EXPECTED TO IMPROVE

Recent lowering of import tariffs should make South Korea an ideal country for expanding Alberta's agricultural export market says Bill Robertson, trade director with Alberta Agriculture's International Marketing Group.

"The Korean duty on rapeseed meal was recently reduced to the same level as soy bean meal," says Mr. Robertson, "so Alberta rapeseed crushers should look forward to increasing exports to this growing market."

However, according to Mr. Robertson, other commodities offer just as much Korean export potential as our rapeseed products. To Alberta processors and producers, this could mean increased exports of breeding stock, particularly beef cattle, and feedstuffs such as dehydrated alfalfa in addition to rapeseed oil and meal. Pork is still another commodity where Alberta producers may benefit from increased exports.

Korea is developing rapidly, says Mr. Robertson, and it has become one of the major market priorities with the International Marketing Group. The Korean market thrust is a co-ordinated or 'package' concept aimed at the rapid development of that country's livestock industry. "The package," says Mr. Robertson, "is really marketing or selling an associated group of goods and services which Alberta can supply and Korea needs."

According to Assistant Deputy Minister, Ben McEwen, who is responsible for the International Marketing Group, this recent success is the result of a five-year effort to interest Korea in Alberta agricultural products. "We hope we're on the brink of a long and strong trade association with Korea."

As part of his division's responsibility for researching new markets and maintaining existing export links, Alberta Agriculture hosted two Korean technical missions this summer. These missions allowed South Korean specialists to view Alberta products first-hand.

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Korean Agricultural Trade Expected to Improve (cont'd)

The first mission included Mr. I. H. Lee of the Korean Ministry of Agriculture and Mr. J. H. Hwang of the National Association of Co-operatives Federation. They spent 10 days during July looking at Alberta beef and dairy breeding stock and associated technology.

The second group then concentrated on feedstuffs and included Dr. I. K. Han, a high ranking nutritionist from Seoul National University and Mr. K. Y. Kang, managing director of the Korean Feed Association.

Already progress has been made. In the past purebred hogs for breeding, dairy animals and small quantities of beef breeding livestock have been sold to Korea. But in line with its development plan South Korea now intends to import about 20,000 Canadian dairy cattle and 10,000 beef cattle each year for the next five years to improve their domestic herds.

In addition to increased exports of rapeseed meal and dehydrated alfalfa, Mr. Robertson is also optimistic about barley exports which he hopes will find a place in Korean feed formulae.

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FOR IMMEDIATE RELEASE

LETHBRIDGE PAMI STATION TO OPEN

A new building housing the Alberta portion of the Prairie Agricultural Machinery Institute (PAMI) will be officially opened in Lethbridge on Friday September 29. Alberta Agriculture Minister Marvin Moore will preside at the opening ceremonies assisted by provincial Ministers of Agriculture Edgar Kaeding of Saskatchewan and James Downey of Manitoba.

The new building will occupy rented space on the Lethbridge Community College Campus. An open house will be held following the inaugural ceremonies to allow the public to view the new facilities. Mr. E. H. (Ed) Wiens, former Alberta Agriculture administrator of the Farm Implement Act, will be the manager and senior engineer at the new Lethbridge laboratory.

The Prairie Agriculture Machinery Institute is a cooperative venture of the provincial governments of Alberta, Saskatchewan and Manitoba, and was established in 1974 to test and develop farm machinery for Prairie use. As well as operating the new Lethbridge station, PAMI has test stations at Portage la Prairie, Manitoba and Humboldt, Saskatchewan where the central test station is located.

The formal agreement which officially brought the institute into being was signed by the three prairie provinces in October 1974. Funding of the institute is shared by the three provinces in the following proportion: Alberta 35 per cent, Saskatchewan 45 per cent and Manitoba 20 per cent.

PAMI director, Jack Peck, says the need for such facilities has been felt on the Prairies for many years.

"Alberta farmers spent over $150 million last year on farm equipment with sales across Canada exceeding $1 billion. Despite the vast sums of money farmers spend, they do not have any easy way to check the functional characteristics of the many types of equipment available to them, aside from color and price. As consumers and businessmen, they need this information to make logical decisions in the selection of farm machinery.

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Lethbridge PAMI Station to Open (cont'd,

"With the opening of our own new Lethbridge facility we look forward to expanding our capabilities in terms of the number of machines we annually test as well being aole to pay particular attention to the specialized agriculture found in Alberta."

In generai any piece of farm equipment can be evaluated at any station, but each station also conducts projects specifically related to that province's own agriculture. For example, irrigation equipment is tested at Lethbridge, combines at Humboldt and specialty crop equipment at Portage la Prairie. Some of the more expensive pieces of testing equipment are shared, and the three stations are equipped by a special telephone line to maintain close relations.

Four major types of projects are undertaken in the following areas: development, evaluation, extension, and associated research. Reports have been issued on the 35 development projects completed since the institute engaged its first staff in 1975. These range from simple component testing to complete machine analysis.

One hundred and twelve evaluation projects have been undertaken since 1967 and reports are available for most of these. Machines evaluated include combines, tub-grinders, round balers, field sprayers, swathers and grain moisture meters.

One of the extension projects completed at Lethbridge was on magnetic seed treaters. A project is underway on electric fencers and another will soon begin on measuring the effect of sound and vibration on machine operators.

Evaluation projects are managed separately by each province, however, the field evaluations are often conducted in farmers' fields throughout all prairie provinces. The new $500,000 facility at Lethbridge will complement this work by offering actual laboratory testing.

Individuals interested in receiving PAMI reports should contact the Lethbridge station. A $5 annual fee entitles subscribers to reports on the approximately 50 machines evaluated each year.

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September 11, 1978

FOR IMMEDIATE RELEASE

PRICING HIGH MOISTURE GRAIN

by
Len Fullen, Productions Economics Branch,
Dwight Karren, Livestock Branch, and
Neal Oberg, Farm Business Management Branch, Alberta Agriculture

Grain producers are becoming increasingly aware of benefits to be gained from harvesting high moisture grain (HMG).

To many these advantages have now become obvious: being able to start harvesting several days earlier, reduced need for artificial drying and improved yields from lower losses due to shattering.

Similarly, cattle feeders are becoming increasingly interested in high moisture grain because it generally offers improved feeding efficiency, promotes increased feed intake and causes fewer digestive disturbances in feedlot animals.

During the past month several Alberta Agriculture personnel have received inquiries from farmers interested in contracting with cattle feeders for delivering HMG. Their main con cern has been establishing a price which will be fair to both buyer and seller.

The simplest method of solving the pricing problem is to calculate a price for dry grain based on its dry matter content. To get a fair price this figure must then be related to the dry matter content of high moisture grain.

For example, if dry barley contains approximately 12 per cent moisture and weighs approximately 48 lb/bushel, then the dry matter content of a bushel of barley would be 42.2 lb. If the street price for barley is $1.30 per bushel at the time of negotiations between the buyer and seller, the dry matter is priced at 3¢ per pound.

If the farmer plans to harvest high moisture barley at an average moisture content of 28 per cent, then one bushel of the wet grain would contain 34.6 pounds of dry matter. That

- (cont'd) -

Pricing High Moisture Grain (cont'd)

figure is obtained from the following calculation: 48 (1 - 0.28) = 34.6. At 3¢ per pound of dry matter then the price equivalent of 48 pounds of wet product would be $1.04. This computation can be stated in the form of a simple equation:

Price equivalent = price/lb of dry matter x 48 lb (1 - % moisture)

The above price ($1.04) for a bushel of high moisture barley would probably be reasonable if the grain producer doesn't incur excessive trucking costs and can haul directly to storage at the feedlot.

In situations where the grain producer provides either storage, processing, extra trucking or any combination of these services, he should be entitled to an extra charge per bushel.

If all of the above services are provided by the grain producer, the final price he receives for HMG may be close to the street price for dry grain.

Individuals who would like additional information about high moisture grains, or require assistance in pricing their grain should contact their regional livestock specialist or regional farm economist.

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September 11, 1978

FOR IMMEDIATE RELEASE

CANADIAN NUFFIELD SCHOLARSHIPS

A four-month travelling scholarship sponsored by Canadian Nuffield Scholarships will be awarded to a Canadian farmer or farm manager wanting to study farming practices and agricultural conditions, primarily in Great Britain, during 1979.

The scholarship is open to either men or women who are either farm managers or are engaged in practical farming in Canada, and who are likely to spread their knowledge upon their return.

The purpose of the scholarship is to increase practical farm knowledge and to create a better understanding between Canadian and European farmers.

The value of the scholarship covers return air fare and includes transportation and basic living allowances for the scholar.

The recipient will map out programs in consulatation with the U.K. Nuffield Scholars Association, the National Farmers' Union and the U.K. Ministry of Agriculture, and will spend time visiting practical farmers and agricultural institutions. On return, the scholar will report directly to the Canadian Nuffield Scholars Selection Committee, present information at public farm meetings, and use his increased knowledge to improve farming practices in his community.

Applicants must exhibit keen research and leadership traits. They must also be Canadian citizens, preferably between 30 and 40 years of age. (Some latitude may be allowed). Prospective applicants should expect to leave Canada in February, 1979, and to complete the study program around July 1, 1979.

Application forms are available from the Secretary, Canadian Nuffield Scholarships, Box 1637, Regina, Sask., S4P 3C4. Deadline for receipt of applications is October 13, 1978.

Winners will be announced about mid-November, 1978.

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September 11, 1978

FOR IMMEDIATE RELEASE

SOLVING THE WOES OF TEMPORARY GRAIN STORAGE

Around harvest season interest in obtaining extra space for grain storage usually begins to build.

"When farmers are pressed for time and need the extra storage capacity, temporary structures can be the answer," reports Wayne Ulrich, Alberta Agriculture's head of engineering field services. However, "alternatives vary in cost, lifespan and time required for construction," he adds, "and a farmer must consider total cost and expected length of use before he makes any purchase."

Mr. Ulrich suggests several options for those requiring temporary grain storage. Among the alternatives are wooden bins, refurbished machine sheds and dual-purpose snow fences.

"Farmers should check out the new polyethylene storage products that can be put up with about two hours' labor. They're versatile and are available in a variety of sizes."

Some farmers prefer temporary bins made from plywood and polyethylene. The material cost is about 50 per cent of an all-polyethylene bin. These bins will last from three to five year advises Mr. Ulrich. However, construction time will take about two days.

"As with any facility erected for grain storage," Mr. Ulrich stresses, "all construction should occur in a well-drained location to prevent spoilage."

Old barns or machine sheds may be suitable for grain storage when walls and floors are reinforced. Cables, tie rods or strong wire should be used for this job. Grain must also be protected from dampness. Covering the floor with a polyethylene sheet that goes high enough up the walls to keep out moisture is one solution.

A reinforced snow fence completely lined with polyethylene has solved many temporary grain storage headaches says Mr. Ulrich. However, farmers should first ensure that the fencing can withstand the pressure that will be exerted by the grain. This type of bin should also have a diameter no greater than 25 feet.

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Solving the Woes of Temporary Grain Storage (cont'd)

If piling grain on the ground is unavoidable, ensure good drainage away from the spot in all directions by first covering the earth with a polyethylene sheet. Keep the grain surface as smooth as possible to avoid rain running into the pile. Losses to wind, rain and rodents may also make selling this grain as livestock feed an attractive alternative.

"Even though these are temporary structures, farmers should still plan these facilities to complement permanent buildings and equipment," suggests Mr. Ulrich. "Try to keep your storage systems simple and efficient."

And if by chance past years' temporary facilities are becoming more than temporary, he advises farmers to re-assess their present storage capability along with expected production levels for the longer term. A critical evaluation may suggest a small upgrading or total renovation is in order for present grain handling systems.

For further information on grain handling and storage, individuals should contact their regional agricultural engineer or write to the Engineering Field Services Branch, Agriculture Building, 9718 - 107 Street, Edmonton, Alberta, T5K 2C8.

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September 11, 1978

FOR IMMEDIATE RELEASE

FALL HERBICIDE APPLICATION

In reviewing an annual herbicide program many farmers should consider fall application of soil-incorporated herbicides because of its often superior results to spring application says Dr. W. M. Hamman, a weed control research scientist at the Agriculture Canada Research Station at Lethbridge.

Supporting his statement Dr. Hamman cites the use of pronamide (KERB), used to control foxtail barley in pastures, as one of the most dramatic examples of fall treatment being clearly better than spring treatment.

According to Dr. Hamman research completed at the Lethbridge Research Station has shown pronamide applied in the fall will provide excellent control of foxtail barley. Yet, spring application of the same chemical, at a rate four times, higher than in the fall, will supply extremely poor results.

Overall, fall herbicide application has five distinct advantages says Dr. Hamman. "It means one less job to do in the spring; it means rough incorporation or even no incorporation is possible; it could mean reduced risk of wind erosion; it could mean improved performance over spring application depending on the chemical, and it generally means increased crop safety.::

In western Canada soil-applied herbicides usually require some form of incorporation to provide acceptable weed control. "This is due to inconsistent rainfall and the fact that often the top two to four centimetres of soil are very dry," says the weed control scientist.

However, atrazine applied to non-tilled grain stubble just after harvest is incorporated without tillage by winter moisture. Thus, says Dr. Hamman, atrazine can be used for chemical fallow weed control on a field that is highly susceptible to wind erosion. Also, fall application of atrazine can provide an inexpensive way to control weeds in sorghum, a new dryland crop. Sorghum, like corn, is highly tolerant to atrazine he adds.

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Fall Herbicide Application (cont'd)

In a three-year, on-farm study conducted by the Lethbridge Research Station, another fall-applied herbicide, Avadex BW granules, gave excellent results in nine out of 10 fields. On the other hand, similar results were obtained only 50 per cent of the time when the granules were applied after seeding and harrow incorporated in the spring.

In tests with sugar beet herbicides, results show that fall applications of Pyramin and Norton provide a higher level of weed control than applications made in a dry spring, but were equal in weed control ability to applications made in a wet spring. In addition, crop safety was greater with fall application.

Not all herbicides are well suited to fall application says Dr. Hamman. For example, Roneet and Eptam are more water soluble and volatile than Avadex BW while providing much shorter residual weed control in the spring. Thus, if Roneet or Eptam is applied in the fall to a field low in organic matter which is seeded late in the spring, by mid-May the chemical concentration may be below the level required for good weed control. Another exception is fall application of 2, 4-D which has been shown to reduce the cold hardiness of winter wheat.

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September 11, 1978

FOR IMMEDIATE RELEASE

ZUCCHINI SQUASH

If you have been wondering whether you can freeze your zucchini squash, the answer is yes !

Helen Raynard of Alberta Agriculture's Home Economics Laboratory recommends the following procedure:

Wash the zucchinis, remove their ends and cut the zucchinis into quarter-inch slices. Blanch them for two minutes, chill and drain them. Freeze them quickly. Mrs. Raynard recommends freezing zucchinis on a cooky sheet. As soon as they are frozen, put them into freezer bags and put the bags into your deep-freeze.

Regardless of whether you plan to freeze or use your zucchinis fresh, they are best when they are six to eight inches long. However, larger ones are also good in many recipes, but you may want to discard the seeds in the very large ones.

You can use small or large or fresh or frozen zucchinis in the following recipe, which is recommended by Mrs. Raynard.

Baked Zucchini

1 lb unpeeled zucchini
1/4 cup margarine
1/4 cup chopped onion
2 tablespoons flour
1 teaspoon salt
Pinch cayenne
Pinch pepper
Pinch nutmeg
1 1/2 cups milk
2 tablespoons grated Parmesan cheese
1 cup shredded Swiss cheese

Cut zucchini in 1/4 inch slices.

Saute onion in margarine in a heavy large saucepan until tender. Stir in flour and seasonings. Cook, stirring constantly, until bubbly. Add milk gradually, stirring constantly until thickened.

Remove from heat. Stir in Parmesan cheese. Fold in zucchini slices. Spread in a 13 x 9-inch baking pan and sprinkle with shredded Swiss cheese.

- (cont'd)

Zucchini Squash (cont'd)

Bake covered at 375° F for 15 minutes. Uncover and continue baking for 15 to 20 minutes or until the top is brown.

People often stuff zucchinis with bread crumbs or rice, but Mrs. Raynard suggests making your zucchini meal more nutritious by adding ground meat. The following recipe includes ground beef.

Stuffed Zucchini

Cut off the ends of four small zucchinis and scoup out the centres from each end (with a sharp pointed knife) so that you have a quarter-inch shell.

Pour boiling water over 1/2 cup uncooked long grain rice. Cover and set aside. Saute 1/4 cup chopped onion in one tablespoon of oil. Add 1/4 pound ground beef. Season with salt, pepper and your choice of oregano, thyme, basil, marjoram, barbecue sauce and catsup. Continue cooking until meat is well browned.

Drain rice and combine with meat mixture.

Loosely pack mixture into zucchinis, again working from each end. Place in casserole. Left-over filling can be packed into corners of casserole.

Pour in sufficient tomato juice to almost cover the zucchinis.

Bake at 350° F until rice is tender -- about 1 1/2 hours.

Serves 4 to 8 people.

Hints

- If time is short, or if zucchinis are large, they can be cut in half lengthwise, scooped out, filled and put back together.
- Baking time can be reduced by cooking rice first -- use only a small amount of tomato juice.
- For added flavor, try adding saffron to rice and tabasco to tomato juice.

- (cont'd) -

Zucchini Squash (cont'd)

The following recipe is designed to enable you to make use of the centres of the zucchinis that you used in the above recipe.

Second Day Zucchini

Saute some chopped onions in a small amount of oil. Add cut-up zucchini, some cut-up tomatoes (fresh or canned). Season to taste with salt, pepper, garlic powder and oregano. Cook until zucchini is tender (10 to 15 minutes).

Mrs. Raynard says second day zucchini is delicious with liver or meat loaf.

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September 11, 1978

FOR IMMEDIATE RELEASE

DISTRICT AGRICULTURIST APPOINTMENT AND TRANSFERS ANNOUNCED

Ralph F. Berkan, associate director of Alberta Agriculture's extension division, has announced the transfer of four district agriculturists and the appointment of one district agriculturist-in-training.

District Agriculturist-in-Training

Willem (Bill) Brass has been appointed district agriculturist-in-training and is now working with Ryley district agriculturist Jim McKay. Mr. Brass is a 1976 graduate of the University of Alberta. Prior to joining the department he was employed as an agronomist at High Level in the Lands Division of Alberta Energy and Natural Resources.

Transfers

Gordon Frank, former district agriculturist at Claresholm, has been transferred to the Brooks office. Mr. Frank graduated from the University of Saskatchewan in 1975 with a major in plant ecology. Prior to joining Alberta Agriculture he was employed by the University of Alberta, and previously worked as a research assistant with Agriculture Canada's Department of Plant Science in Regina.

Jack Hazelwood has been transferred from Athabasca to Three Hills where he now fills the co-district agriculturist position originally held by Phillip Scott. Mr. Hazelwood is a 1970 graduate of the University of Alberta. Prior to joining Alberta Agriculture he was employed as a regional land manager with the Land Management Branch of the British Columbia provincial government. He has also worked as a land inspector with the former Land Use, Appraisal and Planning Branch of the Alberta Government, and as a range surveyor with the former Special Services Division of the Alberta Forestry Service. Mr. Hazelwood is married and has three children.

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District Agriculturist Appointment and Transfers Announced (cont'd)

Gerald Pilger has moved from Smoky Lake to take over the co-district agriculturist position in Drumheller. He replaces former district agriculturist Tom Guidinger who has been transferred to Spirit River as loans officer. Mr. Pilger is a 1977 graduate of the University of Alberta, and orginally trained with district agriculturist Dave Zukerman at the High River office.

Normand Therrien has taken over the co-district agriculturist position in Camrose. A 1977 graduate from the University of Manitoba, Mr. Therrien completed his initial training at Sangudo with district agriculturist Lloyd Giebelhaus. Prior to joining Alberta Agriculture he was employed as a summer assistant with Shell Canada's Agricultural Chemicals Branch.

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AGRI-NEWS

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September 18, 1978

FOR IMMEDIATE RELEASE

THIS WEEK

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September 18, 1978

FOR IMMEDIATE RELEASE

MARKETING CO-OPERATION APPEARS PROMISING BETWEEN ALBERTA AND WESTERN U. S.

The western United States wants a closer relationship with agriculture in Western Canada, and in particular, is looking to increase agricultural exports worldwide as part of a general plan to spur American economic revival.

Those were the impressions gained by trade director Barry Mehr of Alberta Agriculture's International Marketing Group when he attended the recent annual meeting of the U.S. Western Association of State Departments of Agriculture (WASDA) in Reno, Nevada.

Present at the conference were state Directors (akin to provincial Ministers) or their representatives from the 14 member Departments of Agriculture. States represented included Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming plus the territories of Guam and American Samoa.

At the conference Mr. Mehr had the opportunity to address the delegates and put forth Alberta's trade position with the following recommendations:

— that individual states support Alberta and Canadian efforts to establish tariff equity between both countries on agricultural and food products.

— that state and provincial governments work together to get both federal governments to remove trade barriers that hinder movement of products of mutual interest. Often these commodities tend to be overlooked considering the huge number of special interests involved in trade negotiations between governments.

— that Alberta and interested states begin joint-discussions with the intention of improving agriculture in western North America by gaining better co-operation between industry north and south of the border.

According to Mr. Mehr Alberta's recommendations received a positive response. "As a result there will be follow-up meetings with Departments of Agriculture in north central and northwestern states."

- (cont'd) -

Marketing Co-operation Appears Promising Between Alberta and Western U.S. (cont'd)

"We expect all meetings will be constructive and friendly. The attitudes and constraints confronting the western states are similar to those in Alberta. Moreover, these similarities extend beyond economic to political issues and federal/state or federal/provincial relationships."

Beyond specific economic and political questions, other topics were also discussed during the three-day meeting said Mr. Mehr. These included environmental issues created by the differing views of environmentalists and the agricultural sector. In this area specific subjects for concern were pest control and pesticide usage, predator control and soil and water management.

Other topics touched during the meeting were the problems and opportunities created through increased state activity in international marketing, federal-state relations on all marketing issues, and the constraints that will be imposed, and their effect on federal-state relations, by new regulations on food additives and product promotion being proposed by the United States federal government.

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September 18, 1978

FOR IMMEDIATE RELEASE

INSECT REPORTS CAUSE LITTLE ALARM

Over the past few weeks Alberta Agriculture's Plant Industry Laboratory has received scattered reports from southern and central Alberta of small beetles showing up in combine hoppers or graneries.

Hugh Philip, head of entomology, Alberta Agriculture, says the insects present little or no problem to this year's grain being stored.

The most common beetle species being found is the Ant-Like Flower Beetle, he says. Dark brown and just under a quarter-of-an-inch long, its body resembles that of an ant which is how it obtained its name.

At this time of year the beetles are escaping bad weather by hiding under grain swaths says Mr. Philip. As well as shelter the swaths offer food since such things as fungi and other insects also tend to inhabit the same area.

However, adds Mr. Philip, the beetles will seldom reproduce at this time of the year. "They're only collecting under swaths because grain field coverage has been moved into restricted areas (swaths) and the insects are just moving into these restricted areas".

Farmers generally find the beetles on top of their hoppers or on top of their graneries. Often the insects are moving quickly and this can cause producers some concern.

"They're just looking for a way to get out," says Mr. Philip.

"The best advice I can give is, once the farmer has filled his granery, he should leave the latch open at the top so the insects will have a chance to escape."

As far as known the beetles will not cause any damage to the grain either directly, by feeding on the grain, or indirectly, by causing high moisture levels or overheating from their physical presence -- whether dead or alive.

Over winter the insects will usually die. The grain doesn't really provide them with the type of nourishment or protection they need. They would rather lie under debris on the soil surface or in headlandsl.

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Insect Reports Cause Little Alarm (cont'd)

However, farmers should be careful when storing new grain on top of old grain says the entomology head. They should first check old grain for other pest infestations such as rusty grain beetles or red flour beetles.

"If a farmer finds insects in his old grain and is unsure what they are, he should take them to his district agriculturist for positive identification. If he can't find any pests, he can generally assume it will be safe to place the new grain on top of the old."

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September 18, 1978

FOR IMMEDIATE RELEASE

Canadian Acreage Total Beats Previous Best

SEEDED ACREAGE FOR MAJOR CROPS BREAKS ALBERTA RECORD

by Fred Boyce
Statistician, Alberta Agriculture

According to the latest information received by Alberta Agriculture, Alberta farmers seeded more than 15.4 million acres (6.2 million hectares) to the six major crops in 1978. This represents a 7 per cent increase over 1977 totals which means Alberta farmers seeded more acres to these crops than ever before in provincial history.

As well, recent estimates received from Statistics Canada reveal Canadian farmers seeded an all-time high number of acres in the principal grain and oilseed crops in 1978. Current estimates for the seeded area of wheat, oats, barley, rye, flaxseed and rapeseed exceed 51 million acres (20.6 million hectares). If corn and soybeans are included, the area seeded approaches 55 million acres (22.2 million hectares).

Provincially, barley at 5.3 million acres (2.15 million hectares) remains the largest crop. Wheat with 5.1 million acres (2.1 million hectares) follows second, with rapeseed and oats third and fourth respectively.

Nationally, wheat is first, and at 26.1 million acres (10.6 million hectares) accounts for more than half the acreage seeded to the six major crops. Barley is second at 10.8 million acres (4.4 million hectares), a 10 per cent reduction from 1977.

Rapeseed has become Canada's third largest crop at 6.9 million acres (2.8 million hectares), a dramatic increase of nearly 400 per cent from the 1.8 million acres (0.7 million hectares) seeded in 1976. Oats' acreage continues to decline. At one time, oats was Canada's second largest crop, but in 1978 it remains fourth.

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Seeded Acreage for Major Crops Breaks Alberta Record (cont'd)

Across the province, wheat and rapeseed have increased their share of Alberta's land base, mainly at the expense of feedgrains and summerfallow. The 6.3 million acres (2.55 million hectares) left as summerfallow this year is the least since 1952.

Oats and barley acreages have dropped from 1977 reflecting lower market prices and less favorable returns in relation to wheat and rapeseed, as well as large farm supplies or carryover from last year.

Rapeseed acreage at 2.9 million acres (1.17 million hectares) is nearly double the 1.55 million acres (0.63 million hectares) planted last year and is almost four times greater than the acreage seeded in 1976.

Nationally, in conjunction with the increase in land seeded to crops, the 25.3 million acres (10.2 million hectares) is the lowest since 1966. This is due, at least in part, to improved herbicides and thus better weed control. Increased fertilizer usage, better soil and water conservation practices and improved cultural practices, such as more efficient usage of machinery and manpower resources, capital improvements, irrigation, drainage, improved crop varieties, etc., are also reasons for the big drop in summerfallow.

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September 18, 1978

FOR IMMEDIATE RELEASE

HEAT SYNCHRONIZATION HELPS AI PROGRAMS

Results from Alberta Agriculture experiments involving more than 2,000 cows over the past two years reveal heat synchronization can have definite benefits for modern artificial inseminination (AI) programs.

"Heat synchronization is a method of controlling the time of ovulation so beef cows can be batch-bred on a given day," explained Kay Henderson, reproductive physiologist with Alberta Agriculture. Ideally, cows which conceive on the first breeding will then calve nine months later, within a week either side of the optimum calving date.

For the modern cattle breeder test results from heat synchronization displayed several advantages she said.

"Synchronization combined with an AI program usually resulted in bigger and earlier calves. In a well-managed herd 75-90 per cent of the calves would be born within the first five weeks of the calving season. In particular, this would make selection of replacement and market cattle easier and more accurate since selection could be made from animals that are all about the same age."

Breeders will also find other benefits in heat synchronization. Synchronization programs eliminate the need for three weeks heat detection. Most cows which do not conceive will then cycle again within 19 to 22 days.

"This gives the farmer a second opportunity to breed all his cows within the first three weeks of the breeding season," said Ms. Henderson.

However, she added, breeders should be aware that synchronization products do not improve fertility, but only control the time of ovulation. For a successful synchronization program animals need to be well-fed and in good condition so they are cycling. The cows should have had about eight weeks rest after calving. Accurate records and cow and calf identification as well as adequate facilities are also important for both synchronization and AI programs.

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Heat Synchronization Helps AI Programs (cont'd)

According to Ms. Henderson the three products used during the Alberta Agriculture experiments were ICI Pharmaceuticals' *Estrumate*, Tuco Products' *Lutalyze* and G. D. Searle Co.'s *Syncromate B*. All products used properly gave normal pregnancy rates with timed breeding.

Implementing a synchronization program isn't difficult. *Estrumate* and *Lutalyze* usually involve two injections 11 days apart with artificial insemination following three days after the second injection. These products work only on cycling cows.

Syncromate B involves an implant and an injection on the first day with removal of the implant and separation of the calves nine days later. The animals are inseminated two days following implant removal.

"The *Syncronmate B* implant has been used very effectively to syncronize animals in our tests," she said. "And it has also worked on animals which are not cycling." *Syncromate B* is available from Universal Semen Service at a cost of approximately $10 per cow with a $1 rebate for calving data.

Estrumate is dispensed through veterinarians at an approximate cost of $10 per double injection.

For further information interested individuals should contact their regional livestock supervisor or write the Beef Cattle and Sheep Branch, Animal Industry Division, Alberta Agriculture, Agriculture Building, 9718 - 107 Street, Edmonton, Alberta, T5K 2C8.

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September 18, 1978

FOR IMMEDIATE RELEASE

THREE NUTRITIVE PROCESSING GRANTS ANNOUNCED

In a series of joint releases the Honorable Marcel Lessard, federal minister for the Department of Regional Economic Expansion (DREE) and the Honorable Marvin Moore, Alberta Minister of Agriculture, have announced $197,428 in assistance grants have been offered to and accepted by three Alberta processing plants.

The payments will be made under the Canada-Alberta Nutritive Processing Assistance Agreement which stipulates equal cost-sharing by DREE and Alberta Agriculture. The Agreement was created to assist eligible processing plants who establish, modernize and/or expand their facilities in rural Alberta communities.

A nutritive product is defined as one which is suitable for human, animal or plant consumption.

The largest of the three assistance grants will go to Taber Feed Services Ltd. According to company general manager Henry Bekkering, the beef industry is expanding in southern Alberta, and Taber Feed Services Ltd. wishes to grow in tune with this expansion.

The firm intends to install additional steam rolling equipment, construct an addition to the present mill to house the new equipment and make other smaller improvements as part of the expansion program. Between 1979 and 1981 expansion is expected to create six new jobs.

A second assistance offer of $51,274 has been accepted by Pentex Holdings Ltd. (operating as H. and M. Meats) of Grande Prairie to upgrade its present services. By building a new slaughter facility H. and M. Meats expects to provide customers with all regular abattoir services as well as specialized meat by-products.

The new building will be constructed in front of the existing plant which will be converted into cattle pens. Two jobs are expected to be created as a result of the upgrading.

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Three Nutritive Processing Grants Announced (cont'd)

The final assistance offer of $11,879 has been accepted by United Feeds of Innisfail, a division of United Grain Growers Limited. The firm will install another packaging line and make other improvements to its current facility.

Dog food is United Feeds' major product. Floating trout food and pre-wean pig starter pellets make up the remainder of the plant's production.

United Feeds previously received assistance under the Nutritive Processing Assistance Agreement during 1976/77 when it converted an existing feedmill in Innisfail to the present modern pet food operation.

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September 18, 1978

FOR IMMEDIATE RELEASE

ALBERTA AGRICULTURE'S FIELD CROPS BRANCH MOVES TO LACOMBE

Headquarters staff of Alberta Agriculture's Field Crops Branch are now operating out of the new Agriculture Building in Lacombe.

The move of the Field Crops Branch, part of Alberta Agriculture's Plant Industry Division, comes under the Alberta government's decentralization program which began in 1971. The change of location occurred during the week of September 15.

Those involved in the move were:

Dave Jantzie	branch head
Larry Gareau	supervisor of forage crops
Bob Nelson	supervisor of cereal crops
Phil Thomas	supervisor of oilseed crops
Aubrey Sherman	forage crops specialist
Myron Bjorge	range management specialist
Dr. Jim Helm	plant breeder
Lorna Strankman	secretary
Marsha Long	secretary

Alberta Agriculture's district extension office is located in the same building. Also sharing building space are staff of the Alberta Hail and Crop Insurance Corporation who moved from Calgary last spring.

The Agriculture Building is located at 5718 - 56 Avenue, Lacombe. The mailing address is Bag Service No. 47, Lacombe, Alberta, T0C 1S0. The telephone number is 782-4641.

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September 18, 1978

FOR IMMEDIATE RELEASE

ALBERTA AGRICULTURE TO HOST HOUSEWIVES' CONFERENCE

For the fourth consecutive year Alberta Agriculture in conjunction with the Lethbridge Community College will sponsor a Housewives' Conference that will attract residents from all over southern Alberta. The conference is scheduled to be held over three days, September 25, 26 and 27, in Waterton.

"Unfortunately, numbers will have to be restricted once again," says Maureen Bolen, Taber district home economist who is chairperson of this year's conference. "We have space limitations and only about 100 of the 200 or more who requested admittance will be able to attend."

What attracts people to the conference are the many and varied topics discussed. "We touch on subjects of real concern and interest, and this allows participants to really relate to the proceedings. That has definitely been part of our success," says Mrs. Bolen.

Citing a comment made by a 1977 conference participant —— "The speakers were extremely interesting and stimulating and the rest was just what I needed for an overworked, underpaid housewife!" — Mrs. Bolen said that some success could also be attached to the attitude exhibited and hard work put in by conference instructors and leaders.

Included in the line-up of guest speakers are instructors from Lethbridge Community College, specialists and district home economists from Alberta Agriculture as well as personnel from other Alberta government departments.

Session topics this year include: Positive Thinking, Motivating Yourself and Others, Parent and Child Relationships, Handling Depression, Food Drying, Making the Most of your Home, Caring for Houseplants, Women and Credit, Talking to your Teens and Fashion Dimensions '78.

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September 18, 1978

FOR IMMEDIATE RELEASE

A CHILD'S SHARE OF THE FAMILY INCOME

Are you giving your child a sound money management education?

The values and attitudes children have toward money develop through parental guidance and the opportunities they are given to experience money. In particular, values and attitudes parents have toward money and the example they set in using money, have a strong influence on children's attitudes.

Alberta Agriculture's home economics branch has compiled a leaflet to help parents teach children to have a healthy and practical attitude towards money. The leaflet covers such topics as "Should I Give My Child An Allowance?"; "When Should the Allowance Start?"; "How Much Should the Allowance Be?"; "How Much Control Should Parents Have Over the Use of An Allowance?"; "Should Payment of an Allowance Depend Upon the Child's Behaviour?"; "If the Child 'Blows' His Allowance All at Once, Should an Advance Be Given?" and "Should I Loan My Child Money?"

Copies of "A Child's Share of the Family Income" are available from your district home economist or the publications office, Alberta Agriculture, 9718 - 107 Street, Edmonton, T5K 2C8.

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AGRI-NEWS

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September 25, 1978

FOR IMMEDIATE RELEASE

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September 25, 1978

FOR IMMEDIATE RELEASE

CHINESE VISITS COULD SIGNAL INCREASED ALBERTA EXPORTS

A nine-man mission of senior agricultural officials from the People's Republic of China began an eight-day visit to Alberta September 25.

During their stay, the Chinese officials will visit Alberta ranches, research stations, semen producers, feedlots and dehy operations.

According to Assistant Deputy Minister Ben McEwen, responsible for Alberta Agriculture's International Marketing Group, the Chinese are seriously considering purchase of commodities represented by the type of places they will visit. "We're going to do our very best to see that Alberta agriculture is shown as the best producer to meet their needs."

Headed by Yu Po Sheng, Deputy Director General, Cereals, Oils and Foodstuffs, of the Import/Export Corporation of China, a trading organization of the People's Republic of China Ministry of Foreign Trade, the mission is being hosted by the International Marketing Group in conjunction with the federal Department of Industry, Trade and Commerce.

"China sits high on our list of priorities," says Mr. McEwen. "It represents a prime market for many of the province's agricultural commodities."

With 800 million people, China is slowly turning westward for many of its requirements, particularly goods and services in the agricultural sector. In the last two months, Alberta and Canada have hosted two important visits by Chinese missions.

In late August and early September, a 12-man technical delegation from the Government of the People's Republic of China visited Alberta. Headed by Chairman Mr. Chao Fan, Vice-Minister of Agriculture and Forestry and Director General of the National Bureau of State Farms, the tour included ranches, artificial insemination centres and research stations among the sites of interest.

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Chinese Visits Could Signal Increased Alberta Exports (cont'd)

"They displayed great interest in our top quality cattle and semen," said Mr. McEwen. "About three years ago the first shipment of cattle - Angus, Hereford and Shorthorn - was made from Alberta to China and we hope this market will widen in the coming months."

Earlier in August two Chinese potato specialists visited Alberta as part of a cross-Canada tour to look into all aspects of seed potato production, research, disease control and marketing. The delegation consisted of Mr. Li Chin Hua, Associate Professor, North China Agricultural Institute, Mr. Paochen Muang, Chairman of the Potato Research Institute and Mr. Chao Wei Chun, interpreter. Their visit took them to the Provincial Laboratory at the O. S. Longman Building in Edmonton and potato farms in the Edmonton, Lacombe, Red Deer and Blackfalds regions.

"We sincerely hope that technical exchanges will result as an outcome of that particular visit," said Mr. McEwen.

Bill Robertson, International Marketing's trade director for the Far East, is currently visiting China to meet with senior officials of government and industry to examine more closely China's requirements for seeds and technical services which could result in a two-way exchange of ideas.

"China's importance as a world trading partner cannot be underestimated," says Mr. McEwen. "For Alberta it holds exciting possibilities, especially for our producers, exports and technical personnel.

"It is a market to cultivate, and to heed well if we are going to reap the benefits from its trade. It must indeed command our respect if we are going to grow with it."

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September 25, 1978

FOR IMMEDIATE RELEASE

Farmers Should Retain All Propane Receipts

PROPANE TRANSPORTATION REBATE ANNOUNCED

Alberta Premier Peter Lougheed has announced the Alberta Government will institute an interim program providing a 10¢ per gallon transportation allowance rebate on all propane purchased for use in grain drying.

Scheduled to run between September 1, 1978 and December 31, 1978 the program is intended to assist farmers whose grain drying fuel requirements cannot be provided by a natural gas co-operative.

"This new program (will) significantly assist many Alberta farmers who do not currently have access to adequate natural gas supplies," said Mr. Lougheed.

The rebate program is expected to narrow the difference in cost between propane and natural gas used in grain drying. According to Mr. Lougheed the program will also encourage grain drying and will result in improved grain grades and quicker harvest.

To obtain the rebate farmers will need to apply on an individual basis. Farmers will be required to state the amount and type of grain dried and the amount of propane used, and will need to show that a natural gas co-op was unable to supply natural gas for grain drying. To meet the last requirement, application forms will need to be authorized and signed by an officer of a local natural gas co-op.

Application forms will be available in November from propane distributors and district agriculturists. In the meantime farmers are urged to retain receipts for propane purchased on or after September 1 for use in grain drying.

"The actual cost of the program is not currently known," said the Premier, "(since) propane usage is dependent upon fall harvest conditions." Alberta farmers generally use between 500,000 and one million gallons of propane per year for drying grain.

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September 25, 1978

FOR IMMEDIATE RELEASE

BEETLE INFESTATION POTENTIAL GREAT IN SOUTHERN ALBERTA

Alberta Agriculture is receiving reports from agricultural fieldmen and district agriculturists that Rusty Grain and Red Flour Beetle infestations continue to appear in 1977 stored grain in the southern part of the province.

"And if these infestations are not cleared up before the 1978 harvest is stored, we could be in for a bit of a problem," says Mike Dolinski, Alberta Agriculture's supervisor of entomology. "Considering our wet fall and depending on the amount of tough grain harvested, beetle infestations could cause trouble all over the province."

Mr. Dolinski says producers should not confuse these reports of infestation with other stories of farmers who have seen ant-like beetles showing up on top of grain hoppers or bins. "The ant-like insects aren't known to cause any harm to stored or new grain, and we don't advise farmers to use any control measures. Ant-like beetles don't fare well in grain piles and generally die within days.

"The Rusty Grain or Red Flour Beetles are what farmers should be really worried about. Their destructive power could cause farmers to lose a whole year's crop."

In addition to destroying stored grain by causing it to overheat, Mr. Dolinski says live beetles also make grain totally unsellable. "It is against the law to deliver beetle-infested grain to elevators, and farmers will be ordered to fumigate such grain prior to acceptance."

Farmers should take precautions right now to prevent costly infestations in their stored grain this winter. Prevention should start before the grain is stored emphasized Mr. Dolinski.

In particular, these precautions are very important for grain growers in southern Alberta where widespread grain-beetle infestations have occurred in the past. At any one time there is a good chance that beetles will show up in empty or partially empty grain bins, and even appear in bins that have been fumigated in the past.

- (cont'd) -

Beetle Infestation Potential Great in Southern Alberta (cont'd)

Grain already being bin-stored should be examined for infestations he says. "If infestations are found the grain bins should then be fumigated while the weather is still warm. In empty bins the beetles are usually found in cracks and among the sweepings as well as in small piles of waste grain left outside.

Grain beetles move by flying from one location to another during warm weather. Then they lay eggs and start a new infestation. "Theoretically, it can take only one beetle-infested bin to start infestations in bins for several miles around," says Mr. Dolinski.

Listed below are precautions that should be taken every year to prevent beetle infestations. According to Mr. Dolinski, most owners of infested grain he visited last winter had not taken these control measures.

- Clean, repair and waterproof empty bins and burn or bury infested sweepings.
- Remove waste grain that has accumulated inside or outside bins.
- Spray the walls and floor of empty bins by applying one per cent Malathion, 0.1 per cent Pyrethrin or one per cent Bromophos in a one-gallon solution per 1,000 square feet of surface.
- Harvest grain as dry as possible. Insects, mites and molds increase rapidly in tough grain.
- Never store new grain in a bin that contains old grain.
- Fill bins only to the top plates. This will allow heat and moisture that normally develop to dissipate.
- Examine grain every two weeks by pushing one hand under the surface at various points to see if the grain is warm and crusted. If a problem is suspected, a metal rod should be inserted into the grain at various depths to test for warmth and crusting.

Mr. Dolinski says farmers who have had beetle problems in past years, and those who plan to store their grain for a year or more in an area that has been frequently infested, might be wise to treat their grain with Malathion (liquid or dust) as it is being augered into the bin. The insecticide can be obtained from Oliver Industries Ltd. in Lethbridge, Calgary or Edmonton or Kem-san or Sanex in Edmonton. Liquid fumigants are also available through these outlets. Other sources to check are elevator agents and chemical dealers.

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September 25, 1978

FOR IMMEDIATE RELEASE

EL SALVADOR APPEARS PROMISING EXPORT MARKET

An official agricultural mission from El Salvador which began a 7-10 day visit to Alberta on September 24 is expected to yield substantial sales for Alberta's private sector.

Key to possible sales is "imminent approval of a $26 million loan from the Inter American Development Bank," says Al Curtin, trade director with Alberta Agriculture's International Marketing Group.

But, he added, the true responsibility for any sales must also lie in the good relations Alberta has maintained with El Salvador since initial contact was made with that country in 1973.

"At that time El Salvador was not in a position to buy our products or our technology. Now it is or soon will be."

The week-long mission, headed by El Salvador Minister of Agriculture Ing. Rutilio Aguilera, will meet with private industry officials to discuss development of El Salvador's overall agricultural system. The Central American nation staged a similar mission to Alberta in 1974 to discuss agricultural development, but at that time the country was still not in a position to make major purchases.

The current mission will number at least four and will include former Minister of Agriculture Lic. Mauricio Castillo, the chief of agricultural projects, and Assistant Director of Livestock Ing. Luis Antonio Silva. As well two or three members of the El Salvador private sector may join the official mission.

Phased projects where Alberta participation is being considered include improvement of pasture lands, irrigation and drainage works, livestock nutrition and management, animal health and cross-breeding programs. Greater beef and dairy cattle imports from Alberta would be considered part of some programs.

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El Salvador Appears Promising Export Market (cont'd)

One area where Alberta may also participate is in providing the technology required for the construction of livestock buildings, artificial insemination centres, feed, dairy processing and meat packing plants, and refrigerated warehouses. Updating El Salvador's techniques in the areas of marketing and distribution are other sectors where Alberta expertise may be requested.

"El Salvador is a small nation of aggressive people," said Mr. Curtin. "They know what they want, and their attitude guarantees that an improved agricultural system is the only thing they are going to get."

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September 25, 1978

FOR IMMEDIATE RELEASE

COW-CALF ADVANCE PROGRAM EXTENDED ONE YEAR

Alberta Agriculture Minister Marvin Moore has announced the Cow-Calf Advance Program will be extended in a modified form for one year past the current expiry date of January 31, 1979.

Introduced in 1974, this program has provided low-interest loans to more than 26,000 producers over the past four years.

Earlier this year the Minister said the program would not be continued in its present form. The revisions he has now announced encompass curtailing any new loans and increasing interest rates on existing loans as part of the current phase-out.

"People who still have loans will be able to extend the terms of these loans for one year," said Mr. Moore. "However, the interest rate will be raised from the current subsidized level to the rate of prime plus one per cent."

All loans will still be guaranteed to the final date of the program -- January 31, 1980.

Originally, the program was intended to enable producers to feed their calves to heavier weights and to maintain satisfactory cash flow when beef prices were depressed during the past few years. Improved beef prices have allowed many producers to retire their loans, said the Minister, but some producers have not enjoyed the higher returns long enough to allow them total relief from a cash flow squeeze.

That was one reason for continuing the Cow-Calf Advance Program. Another reason, said Mr. Moore, was the desire of many producers to retain their calves on their farms through the coming winter because of the low barley quotas recently announced for the new crop year.

Producers wishing to take advantage of the extended guarantee option should contact the lending institution that provided their current loan before its anniversary date arrives.

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September 25, 1978

FOR IMMEDIATE RELEASE

FALL CONTROL OF CANADA THISTLE

by Andy Birch
District Agriculturist at Stettler, Alberta

This year there seems to be a greater infestation of Canada Thistle in our county than I've seen before. Abundant along roadsides, waste areas, headlands and hay and pasture fields, it is also becoming more and more prevalent in our crop fields. Throughout the county I've noticed that many rape and cereal fields contain several patches of thistle infestation. Unless something is done soon, these patches will expand and become very hard to control.

Control Is Difficult

Canada Thistle is a difficult weed to control due to its well-adapted survival mechanisms. Its extensive underground root system is capable of storing enough food to initiate new growth for as long as 1½ growing seasons. Working over a patch with a field cultivator and harrows or discer can even compound an existing problem unless tillage is repeated each time new growth appears. Of course, in cropped fields this is not possible, and even on summerfallow extensive tillage operations can make the soil vulnerable to erosion.

One adaptive feature of Canada Thistle is the ability of each broken piece that contains a bud to develop a new plant, and consequently, start a new patch. Therefore, unless tillage is thorough, occasional tillage operations can in effect transplant thistles and further establish new patches.

Another reason Canada Thistle is difficult to control is that it develops most of its roots about 3-12 inches beneath the surface. At this depth new shoots can rise from root buds that are situated well below the plow layer.

Yield Losses Can Be Fairly Substantial

With continuous cropping and the current trend towards minimum or zero tillage, problems with perennial weeds such as Canada Thistle can increase. Research conducted in Saskatchewan has shown that six shoots per square metre can reduce wheat yields by 18 per

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Fall Control of Canada Thistle (cont'd)

cent. When the level of infestation increased to 25 shoots per square metre, yields were reduced by an average of 61 per cent.

Since thistle infestations occur in patches, the total yield reductions they cause are not usually this dramatic. Nevertheless, left uncontrolled, these patches can expand to occupy a large portion of a field in which case losses can be severe.

Principles of Canada Thistle Control

A successful control program for Canada Thistle is based on attacking the weed when it is weakest. This occurs when the plant is actively growing and its root reserve is being depleted. Timely mowing or cultivating, at the early bud stage or 3-4 weeks after plants emerge, will prevent root reserves from being replenished. If continued often enough, the plant will enter winter in a weakened condition with very low root reserves. In this condition, it is very susceptible to winterkill. Therefore, the objective of a control program is to starve the weed's extensive underground root system.

Fall Harvest Control

In a crop field successful control of Canada Thistle is difficult to obtain since it is not possible to apply a herbicide at a high enough rate without injuring the crop. In this case, control is usually exercised through suppression of top growth by using chemicals and crop competition. The post harvest season provides a better opportunity for control since higher application rates and different herbicides can be used.

For fall chemical control to be effective thistles should be growing actively. After the crop is harvested, thistle patches can be treated by applying Roundup at 1.5 to 2 lb/acre; 2, 4-D or dicamba at 1 lb/acre, or dicamba (Banvel) at 0.5 to 1 lb/acre plus 2, 4-D at 0.5 to 1 lb/acre.

Two to three weeks after treatment, or as soon as regrowth is evident, the thistle patch should be cultivated. With Roundup, the patch may be worked within seven days. Tillage should be continued until freeze-up.

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Fall Control of Canada Thistle (cont'd)

For control of thistle patches in established grass stands, mowing or applying 2, 4-D at 16 oz/acre or Banvel 3 at 8-16 oz/acre will provide moderate control. Picloram (Tordon) applied at 4 oz/acre and mixed with 2, 4-D at 16 oz/acre will give good control.

Follow label instructions carefully regarding grazing restrictions. In cases of grass-legume pasture, these rates will remove alfalfa and clover from the mixture.

Conclusion

Successful and complete control of Canada Thistle within one year is usually not possible. Control practices usually involve a combination of both chemical and tillage treatments that begin early in the year and extend into the next season. Control is possible if treatment is prolonged and persistent.

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September 25, 1978

FOR IMMEDIATE RELEASE

DEWORMING FEEDLOT CATTLE

by

Dr. Norman Harries, Regional Veterinary Laboratory, Alberta Agriculture, Lethbridge, Alberta, and Dr. Peter Stockdale, Western College of Veterinary Medicine, University of Saskatchewan, Saskatoon, Saskatchewan

Should feedlot cattle be treated for worms? Maybe.

All cattle, especially calves, carry parasitic nematode worms (round worms) in their stomachs and intestines. The worms average about one cm in length and are very thin, which makes their direct observation difficult for the untrained eye. Twenty-five thousand or so may be required to cause disease in a calf.

Signs of disease include loss of condition, a poor coat and diarrhea. To a very approximate degree feeders can estimate the level of parasitism in a calf by counting the number of worm eggs in the feces.

Generally speaking, damp, warm summer weather and pasture crowding favor the build-up of worms in a group of cattle. Thus, in comparison with coastal and southern United States cattle, Prairie beef cattle tend to be lightly infested because of our combination of cold winters and hot dry summers. As well, our animals generally graze large areas of pasture, and consequently, they do not become nearly as heavily infested as cattle raised under the different and more confined management systems practised in the central and southern states.

However, if Prairie summers and falls are unusually wet, and if feeding is poor and calves are crowded, worms will increase and cause sickness. Such disease, if it occurs, is usually found in herds north of the chinook zone in Alberta, in particular the Edmonton and Peace River districts.

A recent concern of feedlot operators is not so much worm disease, but rather the effect these worms can have on feedlot performance. Is it beneficial to deworm cattle when they enter the feedlot?

- (cont'd) -

Deworming Feedlot Cattle (cont'd)

In an attempt to resolve this question, a large number of trials have been conducted, especially in the United States. Most indicate that treatment is beneficial. However, Alberta feeders should remember that many of these trials utilized more heavily infested cattle than are found on the Canadian Prairies.

To try to clarify the local situation, the staff of Alberta Agriculture's regional veterinary laboratory and Agriculture Canada's Animal Disease Institute, both located in Lethbridge, jointly conducted a trial between October and December 1977 at a southern Alberta feedlot.

Two hundred yearling steers, typical of cattle entering Alberta feedlots, were used in the trial. The cattle were segregated on a weight basis and then, at random, were separated into four groups. No change was made in feedlot management. Three of the groups were given different deworming drugs while the remaining group served as a control. Each group was fed the same ration and was slaughtered after 72 days. Fecal parasite egg counts were markedly reduced after treatment, indicating that the drugs were effective. However, it was also evident, based upon weight gains and efficiency of feed conversion, that the treated groups performed no better at the end of the feeding period than the untreated group.

The result from this trial as well as information from similar studies suggest to us that a feedlot operator should not expect an automatic benefit from deworming. In fact, fecal egg studies over the years tend, on the whole, to be very low, indicating low worm numbers. Thus, routine feedlot treatment is probably not advisable.

Deworming should be considered in poorer cattle following wetter than normal seasons. Since worms are usually most numerous following the grazing period, treatment should be carried out in fall and early winter months. Veterinary advice should be sought, and, if possible, fecal egg counts conducted in representative animals. An understanding and evaluation of the above factors should enable the feedlot owner and his veterinarian to determine whether deworming is likely to produce justifiable cost benefits.

September 25, 1978

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September 25, 1978

FOR IMMEDIATE RELEASE

BAD WEATHER POSTPONES RESEARCH COUNCIL MEETING

Owing to the impact of recent weather conditions on Alberta's harvest, the September meeting of the Agricultural Research Council of Alberta, the funding administrator of the Farming for the Future Program, has been postponed until November 1.

This postponement is to allow farmer members of the council to complete harvesting this year's crop said council secretary Dr. Art Olson. The fall council meeting is expected to result in the first allocation of funds from the Farming for the Future Program.

"To date the council has received and is reviewing a significant number of research proposals from across Alberta and Western Canada," said the council secretary. "We anticipate receiving a continuing flow of such applications from private industry, business firms, agencies and government institutions."

As administrator of the $10 million Farming for the Future Program, the Alberta Agricultural Research Council is responsible for distributing approximately $2 million per year in research grants over the next five years. Funded from the Alberta Heritage Savings Trust Fund, Farming for the Future is intended to promote and assist agricultural research which will benefit Alberta farmers and agribusiness in both the immediate and long term.

According to its secretary, the council will consider all aspects of agricultural research, but in line with established priorities special emphasis is being placed on projects which will aid in maintaining and improving the competitive advantage of Alberta's agriculture industry.

Among research proposals received, increasing cereal, oilseed and forage production in northern climates is a favored topic. There have been numerous proposals aimed at improving beef production as well.

The council's secretary points out that all research applications received by October 10 will be considered at the November meeting. Proposals received after the October 10 deadline will be considered at the winter meeting of the Alberta Agricultural Research Council to be held early in the new year.

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September 25, 1978

FOR IMMEDIATE RELEASE

HEAD OF NEW OLDS CROP LABORATORY APPOINTED

Mr. J. B. Gurba, head of Alberta Agriculture's pest control branch, has announced the appointment of James R. Letal as head of the recently completed Plant Industry Division regional crops laboratory in Olds.

The laboratory, located in the Provincial Building in Olds, is the last in a series of three regional labs built to increase efficiency and improve turnaround speed in handling sample submissions. Part of the decentralization program started by Alberta Agriculture in 1972, the laboratory is intended to serve agricultural fieldmen, district agriculturists and local producers in an area bordered by Red Deer in the north and High River in the south.

James R. Letal
New Olds Laboratory Head

As laboratory head Mr. Letal will be responsible for the diagnosis of crop production problems, especially those caused by crop disease. As part of his new duties Mr. Letal will also be responsible for a course in plant pathology at Olds College.

Mr. Letal, a native of Raymond, Alberta, received his education at the University of Alberta. He has been employed with Alberta Agriculture since 1970, first as a bacteriologist in Fairview for two years, then as a plant pathologist with the Plant Industry Laboratory in Edmonton. Since 1975 he has also been manager of the Alberta Seed Potato Program. He will continue to head that program in Olds.

Mr. Letal is married, and he and his wife, Theresa, have three children.

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September 25, 1978

FOR IMMEDIATE RELEASE

SUPERVISOR OF FOOD RESEARCH APPOINTED

Dr. W. W. Ballantyne, head of Alberta Agriculture's agricultural processing branch, has announced the appointment of David J. Schroder to the position of supervisor, food research unit.

As supervisor of food research Mr. Schroder will be responsible for planning and co-ordinating activities of the research unit which aims to respond to the changing needs of Alberta's existing and new food processing industries.

Among the major areas the food research unit investigates are new and improved food processes, new products, product extension, product re-formulation, packaging and food quality and safety. In turn the unit also attempts to co-ordinate and relate its activities to the present and future needs of Alberta's established food and feed processing industries.

Mr. Schroder moves to Alberta Agriculture after working as a research scientist for the past five years at Agriculture Canada's Kentville Research Station in Nova Scotia. In that position he was concerned with food spoilage, fermentation, food product development and technical services to the food processing industry in Atlantic Canada.

Born and raised on a mixed farm near Evansburg, Alberta, Mr. Schroder received most of his education at the University of Alberta. He graduated in 1964 with a B.Sc. majoring in Food Science. In 1969 he received his Master's in Food Science and then moved to the University of Minnesota to obtain his Ph.D. in Food Science in 1973.

Prior to working with Agriculture Canada, Mr. Schroder was employed as a research officer with the British Agricultural Low Temperature Research Council, in Cambridge, England where he studied the shelf life of vacuum packed bacon.

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AGRI-NEWS

October 2, 1978

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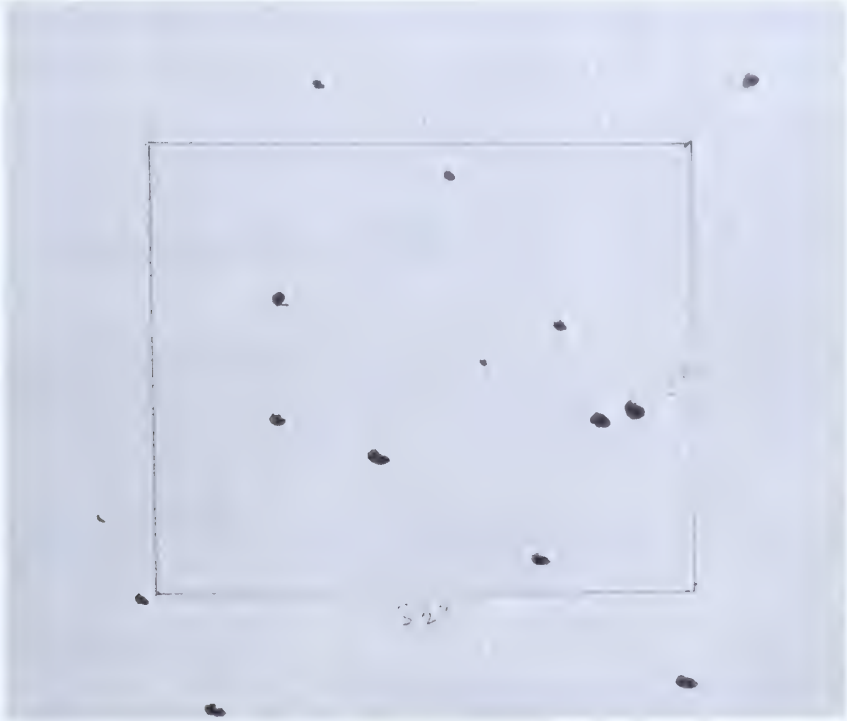
October 2, 1978

FOR IMMEDIATE RELEASE

WARBLE CONTROL IN FEEDLOT CATTLE – A SPECIAL PROBLEM

by
Ross Gould
livestock supervisor for beef cattle
Alberta Agriculture

Warble damage in beef carcasses continues to cause serious losses for the Alberta livestock and meat packing industries. This year alone Alberta packing plants reported that they received more than 37,000 infested carcasses in just four months, February through May. To overcome warble losses the Meat Packers Council of Canada has said packers are discounting, by up to 20¢ per pound, carcass loins that need to be trimmed because of warble damage. For the producer this could mean a loss of approximately $25 per infested market steer.



A badly infested cattle hide displays warble damage currently cutting returns for both Alberta meat packers and cattle producers. The area marked represents about 10 square inches. It contains nine warble holes. (Photo courtesy of the Meat Packers Council of Canada)

- (cont'd) -

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Warble Control in Feedlot Cattle — A Special Problem (cont'd)

Fall Warble Treatment

If cattle have been exposed to egg-laying flies during the summer, then fall treatment with systemic insecticides is the only way to prevent warble losses in affected animals. In spite of improvements in overall warble control in the past 10 years, probably 5 - 15 per cent of all cattle on farms will still contain grubs each spring. Because mature flies can travel several miles, even carefully treated herds can still be exposed to flies from neighbours who may not have been so careful in warble treatment. The result is that all cattle must be treated each year if grub damage is to be avoided.

Certainly, it is in the cattleman's best interest to treat in the spring any animals he has which may reinfest his herd. The same principle does not necessarily apply in the fall to feeder cattle which he is selling. Unless the buyer is willing to pay more for a treated feeder steer, there is no sound economic reason for the producer to treat his feeders before they are sold.

Therefore, the feedlot operator who wishes to be sure his cattle will be warble-free in the spring, must himself treat his cattle in the fall. Feedlot owners are also more likely to treat their stock in the fall if they believe that grubby animals will bring less money in the spring.

This leaves extension personnel three arguments to convince feedlot owners that fall warble control is worthwhile:

1. Warble-free cattle are worth more money.
2. Feedlot owners must treat their own cattle in the fall if they wish to be sure they will be warble-free.
3. To ensure he receives a fair return for his efforts, a feedlot owner must be responsible for informing packers that the cattle he has to sell are warble-free. He may then negotiate a price agreement to reflect this warble control before marketing his cattle, but then he must be sure his cattle are in fact warble-free.

The Time to Treat

The best time to treat cattle is in the fall as soon as the flies have stopped laying eggs. This usually occurs about mid-September or as soon as a good killing frost strikes. Cattle

- (cont'd) -

Warble Control in Feedlot Cattle – A Special Problem (cont'd)

can then be safely treated until the end of October in the southern part of the province (south of Highway No. 2) or until the end of November in the rest of the province.

After those dates warble control will occasionally produce bad reactions in some animals since the small warble grubs may have become located in the gullet or near the spine. In heavily infested cattle treated after those dates the dying grubs may also produce a swelling which could cause bloat or paralysis which would lead to death.

Some feedlot operators have continued to treat cattle until the end of December or even later in recent years. The operators recognize they risk bad reactions in some animals, but the incidence of reactions actually occurring has proven to be relatively rare. Certainly, many feedlot owners are willing to take a chance so that their cattle turn out to be grub-free. In 1977 - 78 three large feeders who extended the treatment season beyond the October - November limits were studied.

1. One large feeder in the Lethbridge area treated his cattle until December 31, 1977. He reported his animals suffered no ill effects. His late control program gave good results this year when less than 2 per cent of the cattle he sold produced a grubby carcass. Last year 26 per cent of the cattle he marketed were grub infested. In May his rate of grub infestation began to rise as the feeder began to market steers bought on or after January 1 (after the last warble treatment).

2. A large commercial feedlot operator in central Alberta continued to treat all his feeder steers until early February when he lost two cattle due to bad reactions. This represented a loss rate of approximately a tenth of one per cent (0.1%). Less than one per cent of all the cattle he marketed this spring turned out to contain grubs.

3. A large feedlot operator in eastern Alberta continued to treat cattle as they arrived throughout the winter. He reported animals suffered no ill effects.

As the average number of grubs per animals is reduced each year, the probability of a bad reaction from late treatment is also lowered. At the same time, a single animal may still carry a large number of grubs, so the risk of losing one or two cattle in a large feedlot operation is still present.

- (cont'd) -

Warble Control in Feedlot Cattle — A Special Problem (cont'd)

Treat When Empty and Active

Veterinarians employed by companies marketing grub control products now recommend that cattle be treated when 'they're empty and active'. This means that, unless an animal displays signs of being sick, it is best to treat feeder cattle as soon as they arrive at the feedlot.

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October 2, 1978

FOR IMMEDIATE RELEASE

OCTOBER FARM ACCIDENT OUTLOOK BLEAK

First, the good news —— September farm accident totals are going to be way down compared to previous years.

And now the bad news —— October farm accident totals are expected to go skyrocketing.

These facts will probably result from the unusually bad September weather experienced all over Alberta, says Solomon Kyeremanteng, co-ordinator of the Alberta Farm Safety Program.

According to reports released by Alberta Agriculture and the Alberta Wheat Pool September harvest operations across the province were almost totally shut down for about 23 days. Since 69 per cent of all accidents during September turn out to be machinery-related, the monthly farm accident total will be reduced.

But as good weather hopefully picks up, fields dry out and harvesting gets into full swing again, the totals could become even higher than normal for fall —— and exceptionally high for October.

"That's because of fatigue and tension," says Mr. Kyeremanteng. "Once fields are in workable condition, farmers will be going like mad to finish this year's harvest. There is a lot of money involved, and days and hours can make a big difference.

"When you're working against time, that spells pressure. When people are under stress or pressure that creates tension, and under tension people tend to ignore warning signs and produce longer reaction times."

Of all farm accidents reported to Alberta Agriculture during September for the past two years more than 25 per cent involved victims who had worked for nine straight hours without taking a break.

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October Farm Accident Outlook Bleak (cont'd)

According to Mr. Kyeremanteng, farmers he has contacted advise that regular rest breaks are the best means they know for preventing harvest accidents. And they have found taking several short breaks is much more effective than taking one long break.

"They also stressed that wet weather was the best time to do machinery repairs and maintenance, rather than when they were busy in the field."

Mr. Kyeremanteng also warned that harvest was the worst season of the year for farm children to be run over — by trucks or bale wagons.

"Keeping track of children, paying closer attention to them, and instilling in them the hazards of living on a farm are the most effective safety measures we know," he said.

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October 2, 1978

FOR IMMEDIATE RELEASE

PICKING UP LODGED GRAIN SWATHS

by
George L. Calver, associate director, and
John Kienholz, engineering technologist,
engineering and home design sector, Alberta Agriculture

After starting a harvest season that once promised to run quick and dry, many Alberta farmers are now faced with grain sprouting after the heavy rains of the past month.

Farmers started off the 1978 harvest in an ideal position; swathing operations were in full swing, but subsequent rains have driven these swaths down through the stubble and onto the ground where the grain has begun to sprout.

As soon as the rains stop, some of this sprouting can be stopped if swaths can be raised off the ground where the swath can dry and then be put through a combine. Of course, the field must be firm enough so that any unit used to pick up these swaths can travel over the ground.

There are a number of ways operators can attempt to pick up swaths which have sunk through stubble. These methods include using a device such as the side delivery rake. In order to use the side delivery rake, the operator must raise the discharge end of the rake so that only the tines on the right-hand side of the machine encounter the swath and give it a single flip. A wheel rake can also be used to carry out the same operation; however, in stony fields farmers may encounter problems with stones being moved into the turned swath.

A number of companies, such as Farmhand, manufacture wheel-type swath turners, which can be either mounted on the front of or drawn by a tractor. Dealers don't generally stock these units in large quantities.

Some shelling is also likely to occur with any of the swath turning units, but the fact that the swath will begin to dry and will then be ready for combining is often enough incentive to encourage farmers to try using this type of machine.

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Picking Up Lodged Grain Swaths (cont'd)

Another approach to swath shifting is to adapt a belt and finger type of combine pick-up which is attached to the front of a swather. The following should be considered before an operator attempts to use this method:

1. Is the platform suitable for the pick-up?
2. If the pick-up has ties for braces that attach to the top of the header, does the swather have a suitable place to fasten these braces?
3. Can the reel drive be used to drive the pick-up? (a jackshaft on the reel arm may be required).
4. Are the platform hydraulics capable of lifting the pick-up plus a wet swath with the reel and sickle removed? (rear ballast may be required).

When installing pick-ups, operators should:

1. Remove the reel and sickle, some pick-ups may also require the removal of various guards.
2. Install the pick-up in a manner similar to combine installation.
3. Rearrange the pick-up drive. A bearing will most likely be required on the left hand side of the platform to support the pick-up drive shaft.
4. Inspect the reel drive pulley since it will probably need to be replaced with a larger pulley in order to drive the pick-up at the proper speed.

With proper installation a downed swath can now be picked up and delivered to the swather belt. It will then be moved sideways and can be deposited on standing stubble which will once again keep the swath clear of the ground.

Undoubtedly, other methods can and are being developed by manufacturers and individual farmers to help them solve the problem of lodged or sprouting grain swaths. If farmers come across an effective idea, we ask them to please contact their local district agriculturist or their regional engineer who might know of others who could use the idea in similar circumstances.

October 2, 1978

FOR IMMEDIATE RELEASE

NEW DUGOUTS REQUIRE PLANNING

Although much of Alberta has received extremely heavy rainfall over the late summer and early fall of 1978, many farmers are still encountering problems storing water to maintain their present operations.

"Despite this heavy rainfall, the total water accumulation does not match that of a spring run-off, and we're continuing to receive requests to fill empty dugouts from across the province," says Andrew Livingstone, agricultural engineering technologist with Alberta Agriculture's engineering field services branch.

To date Alberta Agriculture has filled more than 50 dugouts over the province. "This indicates that water storage capacity on many farms is insufficient for years of little or no runoff," he says.

Farmers who are experiencing water shortage problems, planning to expand their current operations or thinking of expanding their water supply, should consider building a new dugout this fall so it will be ready to hold the spring runoff advises Mr. Livingstone.

For those building new dugouts, potential contamination should be the first concern. Wise dugout location is the major means of combating this problem. "Drainage from grain fields and summerfallow will contain silt, mud, fertilizers and/or herbicides while drainage water from muskegs is high in humic acid which causes the water to be colored brown. Hayland and woodland usually provide the best drainage areas because they generally provide high quality water."

In many areas seepage can also be a major problem. Mr. Livingstone advises all farmers building dugouts in new locations to test soil to at least five feet below the proposed dugout depth. Underlying sand or certain types of clay can effectively act like a big drain plug if control measures aren't taken first. Before building dugouts, farmers should drill test holes at each planned corner and at the dugout centre to ensure the surrounding soils are fairly impermeable (non-porous) says Mr. Livingstone.

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New Dugouts Require Planning (cont'd)

Farmers constructing new dugouts can also receive financial aid from the Prairie Farm Rehabilitation Administration (PFRA) which provides a grant up to $550 for the digging of any new dugout.

For further information on dugout construction, individuals should contact their regional agricultural engineer through their local district agricultural office. Farmers can also obtain additional information by requesting the publication "Dugouts for Farm Water Supplies", Agdex 716(B30)/Revised May 1978, by writing to the Publications Office, Floor 1B, Alberta Agriculture, Agriculture Building, 9718 - 107 Street, Edmonton, Alberta, T5K 2C8.

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October 2, 1978

FOR IMMEDIATE RELEASE

'LITTLE' POCKET RECORD BOOK RECOMMENDED FOR CATTLEMEN

A pocket-size record book which will allow producers to record essential data for a typical beef cow herd for a full year is now available free to Alberta cattlemen.

Entitled 'Programmed Animal Health and Production Record for Beef Cows', the book was published by the Western College of Veterinary Medicine to enable a cattleman to measure the performance of his entire herd over a prolonged length of time.

According to Dr. Frank Baker, Alberta Agriculture extension veterinarian, "It is hard to believe that this 'little' record book, which slips so easily into a jacket pocket, can yield so much useful information. But it does, and I strongly recommend its use."

The book carries space for such entries as annual cow inventory, winter feeding, particulars pre-calving and calving data, pasture disease details, weaning records, etc. The publication is the result of a project funded jointly by the Saskatchewan Department of Agriculture, the Saskatchewan Cattle Check-Off Fund, the Alberta Agricultural Research Trust Fund, the Alberta Cattle Commission and the National Research Council of Canada.

Free copies of 'Programmed Animal Health and Production Record for Beef Cows', or additional information about its use, can be obtained from Dr. E. D. Jansen or Dr. O. M. Radostits, Department of Veterinary Clinical Studies, Western College of Veterinary Medicine, University of Saskatchewan, Saskatoon, Saskatchewan. S7N 0W0.

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October 2, 1978

FOR IMMEDIATE RELEASE

AIRDRIE VETERINARY LABORATORY PROVIDES MODERN FACILITIES

Alberta Agriculture's new veterinary diagnostic laboratory located at Airdrie is considered one of the most advanced of its type in Canada.

Incorporated in its structure are some of the latest developments in design and equipment in the field of diagnosing animal disease. Besides containing facilities for post-mortem examination of animal carcasses, the laboratory also provides secondary testing for bacteria, parasites and other infectious agents. Facilities even enable staff to prepare specimens for microscopic examination.

Carcasses and portions of carcasses are sent to the laboratory by livestock and poultry producers, zoo and university personnel and fish and wildlife officers among others. The laboratory staff prefer submissions from the public to be sent in by a veterinarian.

Submissions are then examined to determine the cause of death and are inspected to determine if any other consideration or disease is present. The second function is most important because early diagnosis could prevent a disease outbreak and minimize the economic losses from such an outbreak. Secondary diagnosis can also aid individual producers by identifying chronic conditions in their herds or flocks which are causing them to lose money.

The Airdrie veterinary laboratory is the fourth laboratory of its type to be opened in Alberta. The other three laboratories are located in Lethbridge, Edmonton and Fairview. Services at all four laboratories are provided free of charge.

The new laboratory is located in the Airdrie Agricultural Regional Building which also houses the regional extension office and the regional food laboratory. It is located on the southeast corner of the Airdrie exit on Highway No. 2, approximately 20 miles north of Calgary. The postal address is Airdrie Veterinary Laboratory, Postal Bag Service No. 1, Airdrie, Alberta, T0M 0B0.

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Alberta
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October 2, 1978

FOR IMMEDIATE RELEASE

THE ASAT AIDS ALBERTA'S AGRICULTURAL TECHNOLOGISTS

To many Albertans the Alberta Society of Agricultural Technologists (ASAT) is a group that serves to raise horizons, expand knowledge and act as a common meeting ground for people in a demanding discipline.

Essentially it is a society of technicians and technologists working in agriculturally related jobs whose objective is to increase the knowledge, skills and proficiency of its members in their respective occupations.

One major objective of the ASAT is to foster interest in, and the better understanding of, agricultural technology by industry, non-agricultural workers and the general public. The society also fosters internal recognition of agriculture's importance among its members.

Admission to the society is liberal. Graduates from recognized agriculture diploma programs from institutions such as the Northern Alberta Institute of Technology (NAIT), the Southern Alberta Institute of Technology (SAIT) and the Fairview, Vermilion and Olds Colleges, as well as people with equivalent diplomas or agricultural experience who are presently working in agriculture are welcome to join the society.

Among the direct benefits ASAT members enjoy are increased work opportunities resulting from recognition as a technologist, increased personal knowledge through exposure to other technologists and the use of the society as a clearing house for job opportunities.

More information on the ASAT including application forms can be obtained by writing to Gordon Ogston, Registrar, Alberta Society of Agricultural Technologists, Bag No 1, Olds (telephone: 226-3040), or A. Oppertshauser, Membership Chairman, Alberta Society of Agricultural Technologists, 4503 - 109A Avenue, Edmonton, T6A 1S3 (telephone: 469-5797).

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October 2, 1978

FOR IMMEDIATE RELEASE

COMING AGRICULTURAL EVENTS

1978

Canada Safety Council Conference
Holiday Inn
Winnipeg, Manitoba. . . . . October 15 - 18

The Canada Grains Council
Semi-annual meeting
Palliser Hotel
Calgary, Alberta . . . . . October 17 - 18

Alberta Agricultural Hall of Fame Banquet and Presentations
Calgary Inn
Calgary, Alberta . . . . . October 18

Joint Meeting of Entomological Societies of Alberta and Saskatchewan
Canada Agriculture Research Station
Lethbridge, Alberta. . . . . October 20 - 21

1978 Agriculture Week
Alberta . . . . . October 22 - 28

International Salon of Food and Agriculture
Olympic Stadium
Montreal, Quebec . . . . . October 22 - 29

Third World Congress of Animal Feeding and International Veterinary Association
Madrid, Spain . . . . . October 23 - 27

Canada Weed Committee
East Meeting
Holiday Inn
Windsor, Ontario. . . . . October 25 - 26

Alberta Broiler Growers' Marketing Board
Annual Meeting
Four Seasons Hotel
Calgary, Alberta . . . . . November 1

Cornell Nutrition Conference
Sheraton Motor Inn
N. Syracuse, New York, U.S.A. . . . . October 31 - November 2

Government Purchasing Opportunities Exhibition - Food
Harbour Castle Hilton Hotel
Toronto, Ontario. . . . . November 1 - 2

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Coming Agricultural Events (cont'd)

Integrated Management of Resources
Bayshore Inn
Vancouver, B.C. . . . . November 2 - 4

Northern Alberta Hereford Club
Annual Meeting
Forestburg, Alberta. . . . . November 4

Women of Unifarm Annual Convention
Sheraton Calgary Hotel
Calgary, Alberta . . . . . November 7 - 8

Farmfair '78
Edmonton Exhibition Grounds
Edmonton, Alberta . . . . . November 7 - 17

Alberta Country Vacation Association
Annual Meeting
Community Hall
Millet, Alberta. . . . . November 8

Royal Agricultural Winter Fair
CNE Grounds
Toronto, Ontario. . . . . November 9 - 18

Potato Seed Growers Association of Alberta
Annual Meeting
Lethbridge Lodge Hotel
Lethbridge, Alberta. . . . . November 15

Alberta Potato Growers Association
Annual Meeting
Lethbridge Lodge Hotel
Lethbridge, Alberta. . . . . November 16

Alberta Potato Commission
Annual Meeting
Lethbridge Lodge Hotel
Lethbridge, Alberta. . . . . November 17

Alberta Association of Agricultural Fieldmen
Annual Meeting and In-Service Training
Sandman Inn
Edmonton, Alberta . . . . . November 21 - 24

The Canadian Seed Growers' Association
A Seed Sales Seminar
Van Winkle Motor Lodge
Edmonton, Alberta . . . . . November 22

Foothills Forage Co-op
Annual Meeting
High River, Alberta. . . . . November 22

- (cont'd) -

Coming Agricultural Events (cont'd)

National Beef Industry Seminar
Regina, Saskatchewan . . . . . November 22 - 23

Agribition
Regina, Saskatchewan . . . . . November 24 - December 1

Canadian Hereford Association
General Meeting
Sheraton Centre
Regina, Saskatchewan . . . . . November 29

Symposium on Rural Development Education in Alberta
Capri Centre
Red Deer, Alberta . . . . . December 4 - 5

Alberta Cattle Commission
Annual Meeting
Edmonton Inn
Edmonton, Alberta . . . . . December 6 - 7

Alberta Polled Hereford Club
Annual Meeting
Red Deer Lodge
Red Deer, Alberta . . . . . December 10

Alberta Shorthorn Association
Red Deer, Alberta . . . . . December 10 - 11

Alberta Angus Association
Red Deer, Alberta . . . . . December 10 - 12

Alberta Hereford Association
Red Deer, Alberta . . . . . December 11 - 12

1978 American Society of Agricultural Engineering
Winter Meeting
Chicago, Illinois, U.S.A. . . . . December 18 - 21

Alberta Irrigation Projects Association
Annual Meeting
El Rancho Hotel
Lethbridge, Alberta . . . . . December

The Royal Smithfield Show
Earls Court
London, England . . . . . December

- (cont'd) -

Coming Agricultural Events (cont'd)

1979

Palliser Wheat Growers Association
Annual Convention
Hotel Saskatchewan
Regina, Saskatchewan ..... January 3 - 5

Farm and Home Week
University of Saskatchewan
Saskatoon, Saskatchewan ..... January 8 - 12

Unifarm Annual Convention
Macdonald Hotel
Edmonton, Alberta ..... January 8 - 12

Canadian Seed Growers' Association (Alberta Branch)
Peace River, Alberta ..... January 16 - 17

Alberta Pork Seminar
Banff Centre
Banff, Alberta ..... January 17 - 19

Provincial Seed Plant Conference
Hotel Macdonald
Edmonton, Alberta ..... January 18 - 20

Drainage Contractors' Conference
Holiday Inn
London, Ontario ..... January 24 - 26

Western Agricultural Conference
Sheraton Centre
Regina, Saskatchewan ..... January 25 - 26

Alberta Rapeseed Growers' Association
Holiday Inn
Edmonton, Alberta ..... January 25 - 26

Western Stock Growers' Association
Lethbridge, Alberta ..... February 1 - 3

Alberta Dairymen's Association Annual Convention
Palliser Hotel
Calgary, Alberta ..... February 5 - 7

Alberta Agricultural Service Board Convention
Hotel Macdonald
Edmonton, Alberta ..... February 5 - 7

- (cont'd) -

Coming Agricultural Events (cont'd)

Aerial Applicators - Annual Meeting
Red Deer, Alberta ..... February 8 - 10

Alberta Poultry Hatchery Association
Mayfield Inn
Edmonton, Alberta ..... February 12

Alberta Poultry Industry Conference
Mayfield Inn
Edmonton, Alberta ..... February 13 - 14

Alberta Hatching Egg Producers Association
Mayfield Inn
Edmonton, Alberta ..... February 14

Alberta Commercial Egg Producers Association
Mayfield Inn
Edmonton, Alberta ..... February 14

Canadian Federation of Agriculture
Annual Meeting
Ottawa, Ontario ..... February 13 - 15

Alberta Egg and Fowl Marketing Board
Mayfield Inn
Edmonton, Alberta ..... February 15

Alberta Turkey Growers' Marketing Board
Mayfield Inn
Edmonton, Alberta ..... February 15

Alberta Turkey Association
Mayfield Inn
Edmonton, Alberta ..... February 15

Agricultural Policy Issues Conference
Banff Centre
Banff, Alberta ..... February 27 - March 2

Ag-Expo '79 (Agricultural Fair)
Lethbridge Exhibition Grounds
Lethbridge, Alberta ..... February 28 - March 3

Management Strategies for Profit
Banff Centre
Banff, Alberta ..... March 4 - 9

Canadian Western Stock Show and Sale and Superodeo
Edmonton Exhibition Grounds
Edmonton, Alberta ..... March 25 - 31

Agriculture Round-Up Week
Calgary, Alberta ..... March

- (cont'd) -

Coming Agricultural Events (cont'd)

Canadian Institute of Food Science and Technology
Annual Conference
Quebec City, Quebec. . . . . May 26 - 29

Alberta Pork Congress
Red Deer Exhibition and Red Deer Lodge Hotel
Red Deer, Alberta . . . . . June 19 - 21

American Society of Agricultural Engineers/Canadian Society of Agricultural Engineering Joint Annual Meeting
University of Manitoba
Winnipeg, Manitoba. . . . . June 24 - 27

Canadian Phytopathological Society
Golden Anniversary Meeting
University of Lethbridge
Lethbridge, Alberta. . . . . June 25 - 27

Alberta Union of R.E.A.'s Convention
Red Deer, Alberta . . . . . June 26 - 27

International Congress of Agricultural Engineering
Michigan State University
East Lansing, Michigan, U.S.A. . . . . July 7 - 11

1979 Klondike Days
Edmonton Exhibition Grounds
Edmonton, Alberta . . . . . July 18 - 28

Agricultural Institute of Canada
Annual Convention
New Brunswick . . . . . August 19 - 23

Canadian Hatchery Federation
Annual Convention
Prince Hotel
Toronto, Ontario. . . . . August 20 - 24

Canadian Society of Agricultural Engineering and American Society of Agricultural Engineering Joint Conference
Winnipeg, Manitoba. . . . . August

Seventeenth Tri-Annual International Conference of Agricultural Economists
Banff Centre
Banff, Alberta . . . . . September 3 - 12

Feed Industry Conference
Convention Inn South
Edmonton, Alberta . . . . . September 20 - 21

Farmfair '79
Edmonton, Exhibition Ground
Edmonton, Alberta . . . . . November 6 - 16

AGRI-NEWS

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October 9, 1978

FOR IMMEDIATE RELEASE

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Time to Treat for Warbles 7

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October 9, 1978

FOR IMMEDIATE RELEASE

ALBERTA'S RURAL GAS PROGRAM BOLSTERED

Dr. Allan Warrack, Alberta's minister of Utilities and Telephones, has announced additional grant assistance, totalling almost $12 million, to the provincial Rural Gas Program. Effective immediately, it will be retroactive to the start of the program in May of 1973.

The assistance consists of two parts. First, the grant that helps rural consumers to construct natural gas lines will be increased from 50 to 75 per cent for farm residents on the portion of the cost that lies between $3,000 and $3,750 and for rural urban residents on the portion of the cost that lies between $1,000 and $1,250.

Second, the special transmission grant is being replaced by a new gas transportation grant based on consumer gas loads and on an averaging of the total capital construction costs. In implementing this new grant, Dr. Warrack said the government will ensure that no natural gas distributor receives a grant smaller than that which it would have obtained under the former system of special grants.

Since the introduction of the Rural Gas Program, almost 46,000 rural Alberta families have been able to obtain natural gas through their local natural gas co-operatives says Dr. Warrack. In total, these co-ops serve nearly 175,000 people in rural Alberta communities who were previously without natural gas.

In accouncing the revisions, Dr. Warrack said the additional assistance should enable most rural gas utilities to reduce their gas rate borrowings, improve their economic viability and assist them to stabilize consumer natural gas rates at reasonable levels. Several rural gas co-operatives which have experienced difficult debt loads are expected to obtain substantial financial relief from the new changes.

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October 9, 1978

FOR IMMEDIATE RELEASE

BAKERY AND CO-OP RECEIVE FEDERAL-PROVINCIAL ASSISTANCE

An Alberta bakery and an Alberta co-op are to receive assistance under the federal-provincial Nutritive Processing Agreement.

The Old Fashioned Bread Bakery Company Ltd. of Smoky Lake will receive $5,453 to purchase new equipment to meet the increased demand for bread and pastry. The estimated total capital to be employed in the expansion project is $30,296.

The bakery produces an assorted line of breads, cakes, cookies, pies and pastries.

Neerlandia Co-operative Association Ltd. at Neerlandia will receive $10,871 to construct facilities for a fertilizer storage and blending operation. The estimated total capital to be employed in the project is $83,624.

The project involves the construction of a 1,000-ton, 5-bin bulk fertilizer storage building and blending equipment on the fertilizer depot site. The expansion will enable the co-op to accommodate the increased use of fertilizer in the area and to improve its service to its clients.

The assistance to the bakery and the co-op was announced by Marcel Lessard, federal minister of the Department of Regional Economic Expansion (DREE) and Marvin Moore, Alberta's minister of agriculture. It is shared equally by DREE and Alberta Agriculture.

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October 9, 1978

FOR IMMEDIATE RELEASE

GREEN CERTIFICATE PROGRAM GRADUATES

Four agricultural trainees were recently presented with level III certificates under Alberta Agriculture's Green Certificate Program.

Norman Bagshaw, formerly of Thorsby; Raymond Brosnihan, originally from South Africa; Marlin Johnson of Calgary and William Stobart, originally from England received their level III certificates from Alberta's minister of agriculture, Marvin Moore, at a special ceremony in the Legislative Building in Edmonton. They were the first trainees to receive level III certificates under the Green Certificate Program.

Their training has already stood them in good stead. Norman Bagshaw is now in charge of the dairy operation on a farm near Leduc , Raymond Brosnihan is a foreman on a large purebred beef and grain farm in the Botha area and William Stobart is a foreman on a large farm in the Spirit River area. Marlin Johnson, who received his certificate in dryland crop production, has decided to take training in beef production under the Green Certificate Program.

The farmers who trained the level III certificate graduates, and who deserve a great deal of credit for the achievement of the trainees, are Arnold Ginther of Fort Saskatchewan, Lloyd Williams of Arrowwood, Mercer Bell of Vermilion and Charles Pearman of Vermilion.

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October 9, 1978

FOR IMMEDIATE RELEASE

RAPESEED MEAL RESEARCH RESULTS

Rapeseed meal (RSM) from the low glucosinolate, low erucic acid cultivar Tower does not impair the thyroid in pigs to any significant degree when fed at a rate of one-half the rate of supplemental protein. This new rapeseed meal level is twice that previously recommended.

Dr. Philip KcKinnon, who did the research on rapeseed meal at the University of Alberta in 1975-76, and whose paper entitled "The Effects of High and Low Glucosinolate Rapeseed Meal and Soybean Meal on Thyroid Function in Pigs and Rats" was accepted for publication by the fifth International Rapeseed Conference, says his findings demonstrate conclusively that the thyroid gland in pigs is not affected by high levels of Tower RSM. When high levels of meal from the older rape varieties were fed to pigs, the glucosinolates (goiter causing compounds) caused the animals' thyroids to become enlarged (goiter) and reduced their level of circulating thyroid hormones. The result was a poor growth rate and the subsequent restriction of the use of RSM in pig diets.

Dr. McKinnon says the fact that Western Canada is three to five years ahead of Europe in breeding quality factors into rapeseed should dispel any lingering doubts about the value of Canadian rape for domestic and export markets. Western Canada is now producing Tower and Candle rape. The latter is another low glucosinolate, low erucic acid cultivar.

"It is very important," Dr. McKinnon says, "that the feed industry start to increase its use of RSM, and that the Alberta rapeseed crushing industry make a greater effort to market this product. The expansion that has taken place in the province's rapeseed acreage will mean there will be a large volume of RSM available in the near future."

Detailed information on the above research can be obtained from Dr. Philip McKinnon, Regional Swine Specialist, Alberta Agriculture, Agriculture Centre, Lethbridge, Alberta, T1J 4C7.

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October 9, 1978

FOR IMMEDIATE RELEASE

CUSTOM OPERATOR HARVESTING RATES

Alberta Agriculture's most recent Agricultural Input Monitoring System survey of grain harvesting operations indicates that custom operators' rates are only slightly higher than last year for most operations even though machinery costs have risen.

The survey examined the following operations:

Combining:	$8-10/acre or $20-80/hour
Last Year:	$6-8/acre
Trucking:	5-10¢ /bushel
Last Year:	5-10¢ /bushel
Drying:	18-25¢ /bushel or $20-45/hour
Last Year:	25¢ /bushel or $35/hour

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FOR IMMEDIATE RELEASE

BARLEY GROWERS HOLD COURSE ON PRODUCER PLATFORM CARS

A course on how to load a railway car with grain will be held on November 6 at the Drumheller Elks Hall in Drumheller and on November 7 at the Lacombe Legion Hall in Lacombe.

It is being sponsored by the Western Barley Growers Association which received a grant from the Alberta Grain Commission and which has engaged Berrien Agricultural and Financial Consulting Ltd. of Calgary to produce and co-ordinate it.

In addition to outlining the step-by-step procedure for ordering, loading and consigning a producer car, the course will feature a practical loading demonstration of grain cars on a nearby railway siding.

Industry personnel from the Cargill and Pioneer grain companies, the Alberta Grain Commission and the Canadian Pacific Railway will discuss grain marketing and various aspects of producer grain handling. There will also be a farmer on the program who has loaded his own producer cars. Resource personnel from other grain companies, from the Canadian Grain Commission and from the Winnipeg Commodity Exchange will be on hand to answer questions.

Registration will begin at 8:30 a.m. and a fee of $25 will be collected at the door The course will get under way at 9:30 a.m. and conclude at 4 p.m. A light lunch will be served and a booklet containing the day's information will be distributed to course participants for home reference.

Preregistration is requested, and further information on the course can be obtained by telephoning Robert Berrien at 281-2800 in Calgary.

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FOR IMMEDIATE RELEASE

TIME TO TREAT FOR WARBLES

The most effective time to treat cattle for warbles is as soon as egg laying has stopped in the early fall.

Alberta Agriculture's livestock supervisor, Ross Gould, explains that the grubs are very small in the early fall and susceptible to such systemic insecticides as Neguvon, Grubex, Spotton, Corral and Prolate. If the grubs are killed in the late fall or during the winter when they move into the gullet or spinal area, they may cause a swelling in the tissues. Swelling in the gullet can cause bloat. In the spinal area it can cause stiffness or paralysis in the hindlegs. "It is the danger of such a reaction between the host animal and the parasite grub that is the reason for the caution against treating in the late fall or during the winter," Mr. Gould says. "The danger of losses becomes less as the number of warbles is reduced, but anyone who wants to treat animals during the winter months must first recognize and accept this risk."

From the safety point of view the standard recommendation in Alberta is to treat for warbles before November 1 in the south of the province and before December 1 north of highway No. 1. Earlier treatment is even better, providing the flies have stopped laying eggs.

Once the grubs have moved away from the gullet and the spinal column in March there is very little danger of a host-parasite reaction from the use of any of the above-mentioned systemics.

Dairy cows present a special problem because the systemic may appear in the milk for a few days after the animal has been treated. To avoid the possibility of the insecticide getting into the food chain, each insecticide lists the time during which a treated animal cannot be milked or slaughtered for human consumption.

A milking dairy cow can be treated with the contact insecticide rotenone between the middle of February and the middle of June because the grub holes are open during this

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Time to Treat for Warbles (cont'd)

period. Since the insecticide must contact each grub individually, it must be applied with a brush or a high pressure spray. These methods will ensure that it penetrates the hair and that the scabs that sometimes form over the holes will be removed. Contact insecticides should be applied at three to four week intervals to ensure that new grubs are reached as they make holes in the hide.

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October 9, 1978

FOR IMMEDIATE RELEASE

REPERCUSSIONS OF FARM ACCIDENTS

Information collected by Alberta Agriculture's farm accident monitoring system (FAMS) shows that about 29 per cent of farm accident victims in the period from June 1976 to May 1978 had to be hospitalized.

Approximately 53 per cent of the victims spent less than a week in hospital, and 30 per cent were released after 14 days. Less than 11 per cent of the patients spent more than 15 days in hospital, while just over 6 per cent were there for more than a month.

Forty-eight per cent of the farm accident victims lost less than seven days of work before resuming their full workload. Just over 65 per cent resumed a full workload after 14 days, and about 82 per cent resumed a full workload after 30 days. FAMS also showed that less than 18 per cent of the victims lost more than 30 days of work.

The effect of lost time varies in relation to the role the accident victim plays on the farm. For example, at the peak of the busy season, or in a tight budget period, loss of the farm operator's management and labor could mean financial disaster. Although a small child's injury has little or no direct impact on the economics of a farm business, it can have a very detrimental effect as a result of the strain it puts on the family.

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FOR IMMEDIATE RELEASE

CUSTOM WOOLEN MILLS

Custom Woolen Mills Ltd., the only custom wool washing plant in Canada, is now open for business. It is located at Carstairs which is about 140 km northwest of Calgary.

In addition to washing your wool, Custom Woolen Mills Ltd., will card and spin it for you or make it into batts. They make comforters that will fit a baby's crib or any sized bed up to king size for people who supply their own wool, linings and covering materials.

The plant also sells batts of 100 per cent virgin wool for both spinning and quilting. The batts are approximately 68" x 88" and can be ordered in any weight up to eight pounds.

Comforters made of 100 per cent wool batts with a cotton or cotton blend cover in plain or printed materials, and spinning rolls can also be obtained from Custom Woolen Mills Ltd. The rolls are made of unpiled and untwisted strands of carded 100 per cent virgin wool. The strands are about one-fifth of an inch in diameter and are designed for home spinning, weaving and knitting bulky Indian type (Cowichan or Siwash) sweaters.

Wool roping is still another product that is available from Custom Woolen Mills. It is made of thick, soft, continuous cords of carded 100 per cent virgin wool about three inches in diameter. It is used for home spinning, textured weaving and for making saddle blankets. The plant also supplies "Mule Spinner Yarns" for knitters and weavers.

The wool supplied by Custom Woolen Mills comes in white, beige, dark brown, light grey, dark grey and black.

If you would like more information on any of the above services and products or on prices, you should contact Custom Woolen Mills Ltd., R. R. No. 1, Carstairs, Alberta T0M 0N0 (Telephone) 337-2221).

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October 9, 1978

FOR IMMEDIATE RELEASE

NUTRITION AND AGING

by Frances I. King
Assistant Food and Nutrition Specialist
Home Economics Laboratory, Alberta Agriculture

Our elderly population has been referred to as our fastest growing minority group. Approximately 8.5 per cent of the Canadian population is over 65 years of age, and it is estimated that by the turn of the century, this figure will have reached 12 per cent.

Good health is essential for making the most of the retirement years. Heredity, environment, degree of social and physical activity, and outside interests, in addition to nutrition, all have an effect on health. Nutrition is one of the factors over which we have some control, so let us take a look at nutrition as it relates to aging.

Although the actual role played by nutrition in the aging process is unknown, few people will dispute that good nutrition is beneficial. In a recent symposium on nutrition and the aged, Dr. A.N. Exton-Smith, a well-known geriatrician, stated that the mortality rate for persons of low socio-economic status was higher than for those of higher socio-economic status, and suggested that this may be due to diet. This is not to say that good nutrition is a magic "cure-all," that will ensure a longer life, but it does offer great potential in relieving some of the health problems of the elderly, especially those associated with nutritional inadequacies.

The only major difference between the nutrient requirements of older adults and those of the rest of the population, is a decreased need for calories. All other nutrients are required at the same level, making wise food choices even more important for the senior citizen.

At a time when food choices are so important, however, eating may lose some of its appeal. Physical changes such as diminished sense of taste and smell, slower digestive processes, loss of teeth or poor fitting dentures, and possibly constipation, may cause a loss of appetite. A lower income, and, perhaps, the loss of a partner may also contribute to less interest in food.

Inadequate food intake may be responsible for fatigue and apathy, which, in turn, may cause seniors to be less active. Inactive people tend to gain weight more easily, despite a

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Nutrition and Aging (cont'd)

reduced caloric intake. According to Dr. Exton-Smith, inactivity is associated with a lower nutrient intake. A low nutrient intake, coupled with a greater tendency to gain weight, could aggravate existing health problems.

Regular meals providing all the necessary nutrients are a must for senior citizens. Fresh and dried fruit, raw vegetables, cheese, crackers, juices, yogurt, cottage cheese, peanut butter and luncheon meats are nutritious, easy to prepare foods for one or two. Breakfast cereals should not be overlooked as good, wholesome foods. Ready-to-eat whole grain cereals are good sources of fibre or roughage, the B vitamins and iron.

Eating cereal is also a good way to include extra milk in the diet. Milk provides calcium and Vitamin D, nutrients thought to help prevent the bones from becoming hard and brittle, a condition that tends to develop with advanced age. Thus milk is as important for seniors as it is for growing children.

Calcium is found in all milk products, but Vitamin D is added only to fluid and dried milk and margarine. For this reason at least some milk should be drunk daily. Hot chocolate made with milk is good for breakfast or snacks, and café au lait, made up of equal parts of hot coffee and hot milk, may provide a pleasant change. Just remember to eat something from all four food groups - - - milk and milk products, meat and alternatives, fruits and vegetables and breads and cereals, - - - every day to be sure all nutrients are included.

Anything that will make eating a pleasant relaxing experience should help to improve the appetite and provide for better food choices. Several small meals rather than three large meals may be more convenient, appealing or comfortable. Keep food simple and easy to prepare. Set the table and serve food attractively. Get together with others who eat alone. Enjoy your meals and remember that good nutrition may play a role in delaying the aging process. To be sure that you get all the nutrients a senior citizen requires, choose your food according to Canada's Food Guide.

If you would like further information on nutrition and meal planning, ask your local district home economist for a copy of "Meals For Seniors".

AGRI·NEWS

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FOR IMMEDIATE RELEASE

FARM SAFETY POSTER CONTEST WINNERS

"A safe Farm Environment" – a first prize picture submitted by a grade IV student

Kirsten Maier, a grade IV student in the John Davidson School in Coaldale, is one of the four first prize winners in Alberta Agriculture's Farm Safety Poster Contest. The picture depicts a safe farm environment.

The other three first prize winners were Wayne Boras, a grade III student at St. Catherine's School in Picture Butte; Danny Vroon, a grade II student at the Neerlandia School in Neerlandia and Derek Hruska, a grade I student at the Forestburg Elementary School in Forestburg.

Bradley Moser of Coaldale and Hilda Vander Hock, also of Coaldale, were the second and third prize winners in grade IV, while Kim Yelenik of Valleyview and Merna Gisler

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of Innisfail were the second and third prize winners in Grade III. Sharon Atwood of Coaldale and Kevin Denis of Three Hills won the second and third prizes in grade II. Carmen Smith of Innisfail and Kelly Gaboury of Sunset House were the second and third prize winners in grade I.

The purpose of the contest, which attracted more than 1,000 participants from grades I to IV, is to focus the attention of young children and their parents on potential farm accident situations so that they are better able to avoid them. The winning posters from each grade of the schools that participated are being used in a coloring and work book for school children in grades I to IV as well as for preschoolers. All the first prize pictures will be used as official Alberta Farm Safety posters.

Participants in this year's contest, organized by Solomon Kyeremanteng, research co-ordinator of Alberta Agriculture's Farm Safety Program, were asked to draw and color a picture of a safe or an unsafe situation on a farm, taking into account such things as livestock, agricultural chemicals, machinery, etc., and to forward the picture to Alberta Agriculture.

Mr. Kyeremanteng says the coloring and work books, a teacher's guide on their use and the posters will be distributed to selected rural schools in those areas of the province where farm accident monitoring is being carried out by Alberta Agriculture. A few copies of the coloring and work book, a parents' guide and some posters will also be sent to all the extension offices in the province for distribution.

Further information can be obtained from the farm Safety Program, Agriculture Building, 9718 - 107 Street, Edmonton, T5K 2C8 (Telephone 427-2186).

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October 16, 1978

FOR IMMEDIATE RELEASE

SPROUTED AND MOLDY FEED

Although the quality of a large portion of Alberta's grain and hay crops has deteriorated badly, in most cases such crops can still be used for livestock if feeding is controlled and supplemental feed is used when required.

Ruth Berg, animal nutritionist with Alberta Agriculture, says the inclusion of sprouted or moldy feed in livestock rations should always be done gradually to avoid digestive upsets and other possible problems. Also, the animals should be watched carefully during the transition from a normal ration.

Ms. Berg points out that sprouted grain is safe to feed, but that it will probably have a lower than normal bushel weight, which means that the digestible energy content will also lower than normal. Consequently, the amount of grain fed will have to be increased to ensure that the animals are getting the required amount of digestible energy.

"Moldy feed," says Ms. Berg, "should be introduced into livestock rations slowly and the animals should always be watched carefully for possible adverse effects. These can include reduced production, reduced feed intake and sickness.

Although most molds are harmless to livestock, there are some risks involved. As a general rule, sheep are more susceptible to molds than cattle. Pigs are rarely affected by molds, but moldy grain or roughage should never be fed to horses because they may cause a condition known as "heaves".

Moldy sweetclover hay or silage should never be fed to any livestock. Even when spoilage appears to be minimal, moldy sweetclover hay or silage may contain dicoumarol. Since dicoumarol can prevent blood clotting, an animal on such feed could bleed to death from a minor injury or from spontaneous internal bleeding.

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Sprouted and Moldy Feed (cont'd)

Although the use of moldy feeds has been associated with premature births and mycotic abortions, Ms. Berg believes these problems may be caused by malnutrition, resulting from the use of feeds that are low in digestible nutrients, as well as from the effect of the mold.

Since there are still no satisfactory methods of analyzing feed for the presence of toxic molds, any production problem or fatality suspected of being associated with moldy feed should be discussed with a veterinarian.

Because moldy feeds are often dusty and unpalatable, animals may take a few days to get used to them, and even then they may not eat enough to meet their requirements. Also, some of the available energy and protein in the feed may have been used for the growth of the mold, thereby leaving the feed with insufficient nutrients to meets the animals' requirements.

For these reasons Ms. Berg stresses that good quality feed should always be added to a ration containing moldy feed. "If the animals start dropping in production or losing weight, they are probably not getting enough nutrients and either the quantity of the ration should be increased or the quality should be improved," she says.

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FOR IMMEDIATE RELEASE

ASBA MAKES IT ON THE EXPORT MARKET

The Alberta Swine Breeders Association (ASBA) has made it on the export market.

David Rous of Alberta Agriculture's international marketing section reports that the ASBA's sales of breeding swine last year totalled $90,000 and that this year's sales have already reached $250,000.

The "white" breeds (Yorkshire, Landrace and Lacombe) are the breeds that are most in demand, according to Mr. Rous. The Yorkshire breed, which represents about 75 per cent of Alberta's hog population, is the most popular. The demand for two "colored" breeds, Hampshires (black with a white belt) and Durocs (red-brown), is increasing rapidly. Although these breeds are in limited supply at the present time, production is expected to increase to meet this demand.

Hog shipments to such foreign markets as Japan, Malaysia and the Philippines are made by air, while shipments to the United States and Mexico are made by truck. Since export hogs require careful handling, the ASBA has designed its own special crates for shipments destined for the Far East. Proper documentation and strict adherence to the terms of the sale are also essential for a successful export program.

"The ASBA," says Mr. Rous, "has done a good job in their export activities in view of the short time they have been involved in this type of selling. Members like Secretary-Manager Leon Boulter have spent countless hours putting together hog shipments for their foreign customers."

The ASBA did not start in the export marketing field until the fall of 1976 when it participated with Alberta Agriculture's international marketing section in the All-Japan Breeding Swine Show in Japan. The following spring a member of the ASBA and a representative of Alberta Agriculture's marketing sector went to Malaysia and the Philippines to make contacts for the sale of breeding swine.

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ASBA Makes It on the Export Market (cont'd)

These promotional activities continued with representatives from the ASBA and international marketing visiting the Guadalajara International Livestock Show in Mexico in the fall of 1977 and the Leon Livestock Show, also in Mexico, the following January. A follow-up visit that was made to Southeast Asia in February 1978 has resulted in swine shipments to Malaysia and the Philippines worth approximately $16,000.

Japan has purchased about $9,000 worth of breeding swine to date and the United States (in an isolated sale) has bought another $14,000 worth.

"However, it is our Mexican neighbors to the south that have proved to be our number one customers for swine," Mr. Rous says. He reports that sales to a number of customers in that country have totalled approximately $200,000 so far this year.

This fall representatives from the ASBA and Alberta Agriculture will participate in the Guadalajara International Livestock Show, which attracts over a million people. There will be a booth with audio-visual aids depicting the merits of Alberta's high quality breeding stock and former customers will be visited to make sure they are satisfied with their pruchases. Those planning to attend the show also anticipate making new contacts to further expand the province's lucrative breeding swine market in Mexico.

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FOR IMMEDIATE RELEASE

WARBLE CONTROL PAYS

Controlling warbles definitely pays! A farmer on a typical mixed farm in Alberta can prevent losses of several thousand dollars a year for a cost of less than $100 if he treats all his cattle carefully each fall.

Ross Gould, livestock supervisor with Alberta Agriculture, reports that research has shown that feeder cattle gains can be reduced by 50 to 75 pounds per head from gadding alone when the cattle are on pasture heavily infested with warble flies. He says the loss in gains for 140 feeder steers and heifers on a typical mixed farm would be 7,000 pounds in terms of lost beef or over $4,500 (at 65¢ per pound). And this loss does not include the reduction in weaning weights that can be expected from calves in the herd (up to 50 pounds per calf) or the damage to the hides and carcasses of the cattle that will be sold the following spring (up to $30 or more a head). All these losses could be prevented by applying a pour-on or a spot-on systemic insecticide for an average cost of 40¢ to 60¢ a head.

Some cattlemen may argue that since losses like those outlined above would not occur in a lightly infested herd, it does not pay to treat for warbles. "The problem with this reasoning," says Mr. Gould, "is that there are usually still enough warble flies around from untreated cattle in the neighborhood to reinfest a herd that is fairly clean as a result of having been treated regularly in the past. Entomologists tell us that each mature female warble fly can lay from 500 to 800 eggs and that she can fly up to five miles to lay her eggs, all of which means that it takes only a few such insects to infest a great many cattle."

Mr. Gould points out that considerable progress has been made in warble control in Alberta since a concerted effort was begun 10 years ago, but that experience over the past three years has shown that threre is no room for complacency. "Unless all segments of the cattle industry keep up their efforts to control warbles much of the gain that has been achieved over the years will be quickly lost," he says.

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FOR IMMEDIATE RELEASE

PUBLIC HEARINGS ON OLDMAN RIVER BASIN WATER MANAGEMENT

The Environment Council of Alberta will be holding public hearings in November into the management of the water resources in the Oldman River basin.

The first hearings are scheduled for Lethbridge on November 6 and 7. These will be followed by hearings at Fort Macleod on November 9, Picture Butte on November 14 and 15, Tabler on November 17, Pincher Creek on November 20, Cowley on November 21, Bow Island on November 28 and Medicine Hat on November 29. They will commence at 9:30 a.m. and there will be evening sessions, begining at 7:30 p.m., on the first day at each location.

The hearings are intended to give people in the Oldman River basin a chance to express their opinions on the overall strategy for the water management, which has been proposed by the Oldman River Study Management Committee. Since this is the last step in a series of studies and consultations that were started in 1974, it is very important that people who want to have some input into the future management of these water resources attend the hearings in their area. They can make their views known either individually or through their organizations.

Full details on the hearings can be obtained from the Environment Council of Alberta, 2100 College Plaza, Tower Three, Edmonton, T6G 2M4 (Telephone Zenith 06075).

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October 16, 1978

FOR IMMEDIATE RELEASE

FALL FEEDERS' DAY PROGRAM

The University of Alberta is going to hold a second Feeders' Day this year. Its location will be the Highwood Memorial Centre in High River and the date is November 2.

The fall Feeders' Day is being held to enable farmers in the southern part of the province to take advantage of the university's practical research findings. The agenda will include two programs, one for beef producers and one for swine producers. The two programs will run concurrently.

Following is an outline of the beef program:

"Are You Making the Most of the Beef Carcass Grading System?" by M. A. Price; "Cold Environment Effects on Cattle Production" by B. A. Young; "Wildlife and Livestock — Conflict or Co-existence" by R. J. Hudson; "Beef Breeding Programs" by R. T. Berg; "Winter Feeding Programs for Beef Cows" by G. W. Mathison and "Weaning Management and Veterinary Questions" by F. P. Baker (Alberta Agriculture).

The Swine Program is as follows:

"Farrowing Management and Baby Pig Care" by F. X. Aherne; "Protein Sources for Swine" by W. C. Sauer; "Feeder Pig Management and Feeding" by F. X. Aherne and "Swine Health and Veterinary Questions" by M. W. Stone (Alberta Agriculture).

Further information on the fall Feeders' Day program (9.45 a.m. to 4:15 p.m.) can be obtained from Ron Weisenburger, Regional Livestock Supervisor, Alberta Agriculture, Bag Service No. 1, Airdrie, T0M 0B0 (Telephone: 948-5101).

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FOR IMMEDIATE RELEASE

ALBERTA PARTICIPATES IN INTERNATIONAL FOOD SALON

Alberta Agriculture is again co-operating with provincial production and processing industries which are sending an agricultural exhibit to the 25th International Salon of Food and Agriculture in Montreal, scheduled to take place from October 22 to 29.

Alberta's theme, "Alberta is also Agriculture" is designed to emphasize five of the province's primary agriculture products: beef, honey, grain, rapeseed and fescue (grass seed), all of which represent a significant portion of Alberta's economy.

The exhibit area will be 60 x 20 feet and will be divided into five sections to display the five primary products mentioned above. This will be done with large murals and photographs depicting the production, processing and consumption of each product. There will also be brochures containing recipes based on the five primary products being featured.

Alberta Agriculture is also co-sponsoring an "Alberta Country Vacation" with Air Canada and Travel Alberta. The person who holds the winning ticket will be eligible for a week's paid vacation on an Alberta farm.

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October 16, 1978

FOR IMMEDIATE RELEASE

GETTING YOUR POINSETTIA TO FLOWER FOR CHRISTMAS

The secret of getting last Christmas' poinsettia to bloom again this Christmas is to give it an uninterrupted dark period of 13 to 14 hours a day, begining in early October and to put it in bright sunlight during the day. This treatment should be continued until the plant starts to flower, usually in six to eight weeks.

Alberta Agriculture's horticultural specialist, Chris Campbell, says the best ways to ensure an uninterrupted dark period is to put the plant in a room where the light does not have to be turned on in the evenings or to put it in a cupboard every evening and take it out the next day when it has had 13 or 14 hours of darkness. This dark period is critical to the flowering of poinsettias. Even a minute of light during the dark period or the glare from an outside light can retard flowering.

A poinsettia plant that is under going the short-day treatment should be fertilized about every four weeks with a water-soluable complete fertilizer, and it should have enough water to prevent it from dropping its leaves. The recommended temperature is 18 or 19°C. A temperature of higher than 21°C can delay flowering.

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October 16, 1978

FOR IMMEDIATE RELEASE

WINTER SQUASH

Winter squash should be stored on shelves in a cool (10 to 15°C), dry place. Variation in color, size or shape does not affect its flavor, but squash that are heavy for their size store best. They should always be free of soft spots.

Betty Birch, Alberta Agriculture's district home economist at Stettler, says squash is a good source of vitamin C, an excellent source of vitamin A and is low in calories.

She suggests leaving the skin on when cooking squash because it is easier to take it off later and because the skin helps to preserve the nutrients. She recommends cutting the squash into chunks and then baking or steaming it. After removing the skin, drain it and add butter and seasonings.

Squash can be served in a variety of ways. It is good with sour cream, nutmeg, brown sugar, bacon bits, ginger or grated orange peel.

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AGRI-NEWS

October 23, 1978

FOR IMMEDIATE RELEASE

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October 23, 1978

FOR IMMEDIATE RELEASE

NUTRITIVE ASSISTANCE FOR LETHBRIDGE COMPANY

The Ellison Milling Company of Lethbridge, a division of Parrish and Heimbecker Ltd., will receive $232,473 worth of assistance under the Canada-Alberta Nutritive Processing Assistance Agreement to modernize and expand its facilities.

The modernization and expansion, expected to create 11 addition jobs by 1981, involves the flour mill, the feedmill and the grain handling operation. The estimated total capital to be employed is $1,549,819.

The Ellison Milling Company processes about 15 different flour products. It is anticipated that the modernization project will enable it to make more efficient use of the feedmill, elevator and flour mill and to produce a more consistent flour yield and quality of product.

The Nutritive Processing Assistance Agreement is shared equally by the federal Department of Regional Economic Development (DREE) and Alberta Agriculture. Assistance to the Ellison Milling Company was announced jointly by Marcel Lessard, federal minister of DREE and Marvin Moore, Alberta's minister of agriculture.

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Alberta
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Phone (403) 427-2127

October 23, 1978

FOR IMMEDIATE RELEASE

FACTS ABOUT ALBERTA'S POULTRY INDUSTRY

It is quite conceivable that over the next decade Alberta's poultry industry will rank second only to the province's beef industry in terms of the number of pounds of food produced.

This is the opinion of Gerry Patsula, Alberta Agriculture's poultry supervisor, who points out that Alberta's poultry industry produced 90 million pounds of meat (on an eviscerated basis) and 40.4 million dozen eggs last year. At an average weight of 1.5 pounds per dozen, approximately 60.6 million pounds of food were produced from the eggs. Thus, according to Statistics-Alberta 1977, the poultry industry produced 150.7 million pounds of meat and eggs compared with 899.4 million pounds of beef, 153.4 million pounds of pork and 2 million pounds of mutton and lamb (cold dressed weight basis) during the same period.

Mr. Patsula reports that the per capita consumption of broiler chicken alone today is 33.6 pounds per capita, and the per capita consumption of fowl is 2.7 pounds compared with 15 pounds per capita for all chicken in 1950.

It takes approximately 2.05 pounds of feed to produce a pound of broiler meat today compared with 3.27 pounds of feed in 1950. "That" says Mr. Patsula, "represents a 39 per cent increase in feed efficiency. And with approximately 50 million pounds of chicken meat processed in Alberta last year, it represents a saving of nearly 61 million pounds of feed compared with 1950 to produce the same amount of chicken."

Last year it took seven weeks to produce a broiler of 3.08 pounds liveweight at slaughter compared with 12 weeks in 1950. Hence, the average length of marketing time has been reduced by five weeks or by 36 per cent.

The growing cycle for broilers is nine weeks today compared with 14 weeks in 1950, thereby allowing growers to put through 5.8 cycles a year. This means that 20 per cent less housing is required today compared with 1950.

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Facts About Alberta's Poultry Industry (cont'd)

The space required to grow a broiler today is about 0.75 square feet compared with one square foot in 1950. This increase in density means a further 25 per cent saving in housing requirements. "The technical advancements in genetics, nutrition, disease control, ventilation, management and the many innovations in housing have made it possible for the Alberta broiler industry to use this 25 per cent reduction in housing requirements to grow a 17 per cent larger bird," Mr. Patsula says.

Thus the progress in broiler house utilization in just over a quarter of a century amounts to 20 per cent less housing required because of a shorter growing period, 25 per cent less housing required as a result of increased density and a 17 per cent reduction in housing requirements because of larger birds, which amounts to a total of 62 per cent less housing.

If these efficiencies had not occurred during the past quarter of a century, it would cost 67.5¢ to produce a pound of broiler today compared with 36¢ a pound (1978 Alberta Cost Studies) or almost twice as much.

The authorized quota square feet for the Alberta broiler industry was 3.2 million in 1977. Mr. Patsula says,"If broilers were grown today with the space required in 1959, and with present contracted housing and equipment costs of $8 per square foot, and assuming present per capita consumption, our broiler housing would cost approximately $42 million compared with today's $26 million."

The egg industry story is similar to that of the broiler industry.

The Canadian Egg Marketing Agency uses a production factor of 20 dozen marketable eggs per hen per year. Since it took approximately 2.6 million layers to produce about 28.5 million dozen eggs in Alberta (10.8 dozen eggs per hen) in 1950, the number of eggs laid per hen has increased by 46 per cent in that period. This increase in production has been accompanied by a decrease in the laying hen population by almost 30 per cent in Alberta (the 1977 layer population was approximately 1.9 million).

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Facts About Alberta's Poultry Industry (cont'd)

Today it takes an average of 4.2 pounds of feed to produce a dozen eggs compared with approximately 5 pounds in 1950, an increase of 30 per cent in feed efficiency.

In 1977 the average weighted price per dozen eggs was 68.8¢ compared with 32.2¢ per dozen in 1950, an increase of some 36.6¢ per dozen in 27 years or an average producer increase to consumers of only 1.5¢ a dozen per year.

The things that have been mainly responsible for the astounding changes that have taken place in the poultry industry in Alberta over the last 25 years or so are larger production units, a high degree of specialization in management and housing methods, intensive production systems, significant developments in genetic selection, great advances in nutrition and great advances in disease control.

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October 23, 1978

FOR IMMEDIATE RELEASE

FILE CROP INSURANCE CLAIMS EARLY

Alberta crop insurance policyholders who have claims are urged to file them promptly to ensure early payment.

Ed Patching, general manager of the Alberta Hail and Crop Insurance Corporation, says farmers who feel that their production is less than the guaranteed coverage for an insured crop should file a claim at their crop insurance district office within 15 days of completing the harvesting of that crop.

In cases where a crop has been damaged to the extent that the insured does not feel that it is worthwhile to harvest it, he must file a claim and have the crop inspected by a corporation adjuster before putting it up for feed, pasturing it or using it for any other purpose.

If winter should set in before a crop has been harvested, the claimant must report any unharvested acreage as of November 30.

Mr. Patching says this fall's unfavorable harvesting weather has caused extensive damage to crops throughout central and northern Alberta due to sprouting and general deterioration.

The Alberta Hail and Crop Insurance Corporation expects that payments made under the crop insurance program will be heavy again this year. However, the full extent of claims will not be known until harvesting has been completed or until it becomes apparent that no further harvesting can be done this year.

The corporation paid out over $39 million in crop insurance claims last year.

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October 23, 1978

FOR IMMEDIATE RELEASE

MORE LOUSY COWS WANTED

Scientists at the federal research station at Lethbridge want as many chronically louse-infested cows as they can get to determine the effectiveness of some new insecticides.

To be of use to the scientists the cows must be so heavily infested that you can see the eggs and the lice on the hair and the blood from the squashed lice when the animals scratch.

The scientists would prefer to get the cows from herds not any further north than Red Deer because of transportation costs. However, if they are unable to get enough in the southern part of the province, they may be interested in animals in the more northerly areas.

So, if you have a chronically lousy cow --- most herds have one or two hanging around --- here is your chance to get rid of her. A staff member from the research station will come out to your farm and look her over to see if she has enough lice on her for their experiments. If she has, he will negotiate a price with you.

The person to contact on this subject is Marvin Qually, Veterinary Medical Entomology Section, Agriculture Canada Research Station, Lethbridge, TIJ 4B1 (telephone 327-4561).

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October 23, 1978

FOR IMMEDIATE RELEASE

FEED AND FORAGE EXCHANGE OFFICE IN CALGARY CLOSES

The duties of Cliff McArthur of the Alberta Grain Commission's Feed and Forage Exchange in Calgary have been taken over by George Davidson of the commission's Edmonton office (telephone 427-7329). The closure of the Feed and Forage Exchange office in Calgary coincided with Mr. McArthur's retirement.

Residents of the Calgary area can reach the Feed and Forage Exchange's listing service by telephoning Alberta Agriculture's regional office in Airdrie (telephone 948-5727).

The Alberta Grain Commission's 24-hour grain price phone-in service was moved to Edmonton last spring. It provides the range of grain prices currently being offered to Alberta farmers and can be reached by dialing the toll-free number 1-800-222-6414.

John Channon, chairman of the Alberta Grain Commission, urges the grain trade and Alberta farmers to take advantage of the information services provided by the commission and says that the commission wants to maintain as broad a contact as possible with the grain producing community.

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October 23, 1978

FOR IMMEDIATE RELEASE

ARTIFICIAL INSEMINATION COURSE FOR DAIRY CATTLE

Olds College is holding a dairy cattle artificial insemination course from November 27 to December 15 .

It will include extensive practical use of artificial insemination techniques and the handling of semen for both straw and vials. It will also cover feeding practices and an examination of rations as well as a discussion of breeding problems related to nutrition, hormonal control of breeding, etc.

The cost of the course including registration, tuition, materials, board and room (if required) is $295. The cost without board and room is $105.

Applications will be accepted on a first come, first serve basis. The forms and further information on the course can be obtained from the Registrar, Olds College, Olds, T0M 1P0.

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October 23, 1978

FOR IMMEDIATE RELEASE

HORSES NEEDED FOR SHOEING

If you live reasonably close to Olds College and have a horse that needs its feet trimmed or that needs shoes, you are in luck. The college's farrier class is looking for horses that require this work and will do it for a very nominal fee.

The farriers do regular and corrective trimming for horses that will be turned out during the winter and for those that will be used for light work during this period.

They also do regular, sharp and corrective shoeing, and they use the latest blacksmithing and shoeing techniques. All the therapeutic work is done under the supervision of qualified veterinarians.

The course started in September and will run for 16 weeks. So, if you have a horse that needs its feet trimmed or needs regular shoeing or corrective shoeing for a foot or leg problem, you should contact Chuck O'Hanley at Olds College as soon as possible. The horses will be accepted on a first come, first serve basis. The address is Olds College, Olds, T0M 1P0 (Telephone: 226-3311).

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October 23, 1978

FOR IMMEDIATE RELEASE

PROTECT BEEYARDS AGAINST BEARS

Even though you were not bothered by bears ravaging your honey crop last summer, it does not mean that the colonies you are overwintering will be left in peace.

"Depending upon alternative food supplies and previous experience, says Dr. Ulf Soehngen, "your neighborhood bruin may well decide to top off his autumn feast with a few select combs from your apiary which contain fat, juicy larvae and pupae." Dr. Soehngen is Alberta Agriculture's supervisor of apiculture.

To avoid any such problems between now and when the bears hibernate, he strongly recommends that beekeepers take the necessary precautions. Make sure, for example, that your electric fence and battery are working properly. Electric fence and battery maintenance are just as important during the fall as during the summer if you want to find your colonies intact next time you visit them.

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October 23, 1978

FOR IMMEDIATE RELEASE

NATIONAL 4-H CLUB CONFERENCE

Eight delegates will represent Alberta 4-H at this year's National 4-H Club Conference in Toronto, scheduled for November 7 to 12.

Chosen at the 1978 4-H Selection Program last May, the delegates are: Todd Vankosky of Wildwood; David Birkenhagen of Carrot Creek; John de Milliano of Millet; Jady Grad of Leduc; David Longshore of Byemoor; Cynthia McLaughlin of Pickardville; Joy Eriksson of Camrose and Hilda Van Gyssel of Ponoka.

The theme of this year's conference, organized by the Canadian Council of 4-H Clubs, is "Energy Use in the Food System." While learning about various energy uses in the food industry, the delegates will visit related industries and explore the area of food pricing. They will also visit the Royal Winter Fair, Niagara Falls, and explore various aspects of urban Toronto, one of Canada's largest cultural and historic centres.

The conference hosts eight delegates from each province and a group from the United States. Through small group work and social activities, this offers an excellent opportunity for 4-H'ers to meet and share ideas from all across the country. The young people representing Alberta will certainly return with greater knowledge and understanding gained during this conference. "We can look forward to their return and to the reports they can make on the many experiences they will have," says Gail Horner, program co-ordinator for Alberta Agriculture's 4-H branch.

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October 23, 1978

FOR IMMEDIATE RELEASE

FALL POULTRY SHOW

The deadline for entries in the North Central Alberta Poultry Association's annual fall show is 9:30 a.m., November 4, but those organizing the show would like to have an approximate idea of the number of entries at least two weeks in advance.

The show will take place on November 4 in the Wetaskiwin Drill Hall, located at 50th Avenue and 47th Street, Wetaskiwin. The judge will be R. A. Boulter from Langley, B. C.

There are classes for ornamental fowl, standard and bantam poultry, pigeons, geese, ducks, turkeys, cavies and rabbits.

There will also be a special pet class for children 12 years old and under. Any pet that falls into one of the above categories will be eligible for the show. It does not have to be purebred.

A pair of Rosecomb bantams and a pair of Indian Runner ducks will be given away to raffle ticket winners.

Further information on the show and entry forms can be obtained from Mrs. Jean Urquhart, R. R. No. 5, Wetaskiwin, T9A 1X2.

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October 23, 1978

FOR IMMEDIATE RELEASE

IT'S TIME TO COVER YOUR ROSES

All rose species, except shrub roses, need some form of winter protection to prevent their wood from drying out and to protect them against fluctuating and extremely cold temperatures, any of which can injure or kill roses. Winter protection also prevents premature growth in the spring.

Chris Campbell, horticulture specialist with Alberta Agriculture, suggests pruning your roses between mid-October and freeze-up. Pick off any leaves and cut out dead or weak branches. Then dust each rose with a rose dust.

In late October or early November surround the bushes with fibreglass batting, styrofoam cones (specially designed for this purpose), tubes (used by the construction industry), small boxes or cones made of chicken wire and place insulating materials inside the frames. Before filling the frames, you should cut the rose bushes back to below the top of the particular type of frame you are using.

Such things as peatmoss, live sphaghum moss, straw, sawdust, vermiculite, soil or dry leaves can all be used for insulating material. You should pile the one you choose around the rose bush to a height of 20 to 30 cm. Then cover the whole frame or the top of the frame, depending upon the type used, with one mil plastic to keep the insulating material dry. Moisture will reduce its insulating value and increase the chances of the roses rotting.

If your roses are in rows, you may want to make a frame with wire or boards that goes the whole length of the row rather than insulating each rose individually. You would follow the same procedure as recommended for individual rose bushes, and you should again cover the insulating material with plastic sheeting. To make double sure that your roses are well protected against the cold, you can cover the individual frames or the long frames with evergreen boughs to trap the snow. Snow is one of the best types of insulation there is for plants.

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It's Time to Cover Your Roses (cont'd)

Ms. Campbell recommends using trenches for climbing roses. Detach them from the wall and lay them in a 90 cm deep trench just before the ground freezes and fill it with loose soil. Then put straw or evergreen boughs on top to trap the snow.

Be careful when you remove the insulation from your roses next spring. If you leave it on too long, the roses will be easily damaged by wind or a change in temperature and their new growth may be weak. If, on the other hand, you remove it too soon, the roses may be killed by drying spring winds. Ms. Campbell recommends removing the insulation gradually, with the last of it coming off as the leaf buds begin to break.

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October 23, 1978

FOR IMMEDIATE RELEASE

HALLOWEEN PRECAUTIONS AND SUGGESTIONS

Halloween can be one of the highlights of your children's activities this year, and it can be safe, if you follow the guidelines recommended by the Alberta Safety Council.

- See that preschoolers are always accompanied when out Halloweening by an adult or an older, responsible child.
- Put retro-reflective strips on dark costumes.
- Give your children a flashlight.
- Use costumes that are flame proof, fit well and allow freedom of movement.
- Put make-up rather than masks on your children to ensure clear vision.
- Insist that your children stay within your neighborhood.
- Tell your children to visit only houses that are well lit on the outside.
- Suggest to your children that they walk in small groups.
- See that your own walks and steps are free of obstructions.

To assist those who provide Halloween treats, the council suggests the following:

- Peanuts in the shell
- Candy (only if wrapped individually when purchased)
- Gum (in individual boxes or packages)
- Tiny Comic books
- Finger puppets
- Pennies
- Small boxes of raisins
- Colored pencils
- Balloons

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AGRI-NEWS

AE 1691

October 30, 1978

FOR IMMEDIATE RELEASE

THIS WEEK

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October 30, 1978

FOR IMMEDIATE RELEASE

PREVENTING SHIPPING FEVER IN CALVES

by
F. P. Baker, D.V.M.
Beef Cattle Extension Veterinarian
Alberta Veterinary Services Division

There are many factors responsible for the occurrence of shipping fever in calves, but the most important is the stress they undergo when faced with the sudden transition from a quiet life on pasture to a bewildering strange world. They have to adapt to such things as a change from milk to feed, crowding, separation from their mothers and procedures which often involve physical abuse.

All these stress factors lower the resistance of the animals to infection. Stress also allows potentially dangerous disease organisms already present in their bodies, especially in the resoiratory tract, to multiply rapidly, thereby causing shipping fever. Normally, these organisms are kept under control by the natural defences of the body.

Shipping fever is not the best name for the disease because animals that do not leave the ranch or farm are also subject to it. However, calves which undergo the additional stress of shipping are far more likely to suffer from it than calves left at home after weaning. The smaller the calf, the more likely he is to suffer from shipping fever. Also, the longer the shipping and transition period from first seller to final buyer, the more likely the calves are to suffer from the disease. Add to this the additional hazard of being in crowded sales yards with other potentially diseased animals, and you can see why "shipped" calves are so likely to develop shipping fever.

Major Cause is Pasteurella

Typical shipping fever is caused by bacteria of the Pasteurella species. Research in recent years has incriminated several viruses as being responsible for triggering the disease in

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Preventing Shipping Fever in Calves (cont'd)

calves. However, these viruses alone cause only a relatively mild disease. There appears to be little doubt that the cause of the major sickness and of death is the pneumonia produced by the Pasteurella bacteria. Development of an effective Pasteurella bacterin, or "vaccine," would be a godsend in preventing shipping fever, but, unfortunately, the Pasteurella organism appears to have poor immunity-producing characteristics, and researchers have been unable to produce an effective vaccine.

Prevention

Prevention at this time of year must be directed towards eliminating stress or keeping it to a minimum. Weaning and moving calves to their final destination, whether it be a different pasture or a far away feedlot, should be done with a minimum of excitement, and in as short a period as possible. This should be the goal of every calf producer and buyer.

All vaccinations and operations involving handling the cattle should be done at least three weeks before the calves are weaned. When possible, bring the calves and their mothers to a pasture close to home sometime before the calves are weaned so that they can be left there after weaning. They will then be familiar with their environment when the cows are taken away. At this time, also introduce them to the kind of feed they are likely get when they are weaned. Few cattlemen will be able to follow this procedure exactly, but even a modified version that lowers the stress of weaning will pay off !

It should be emphasized that the above procedures are of greatest benefit to cattlemen who are planning to winter their own calves. There is considerable controversy over whether or not it is economically sound to precondition calves that will be sold at weaning time. The seller certainly needs to be reimbursed for his preconditioning work by receiving a higher price

Preventing Shipping Fever in Calves (cont'd)

for his animals, but it has not yet been proved that the added cost of preconditioned animals to the buyer is worth the attendant costs that are claimed by its proponents and the reduced incidence of shipping fever.

Sharp buyers know that preconditioned calves will have greater rumen fill than non-preconditioned animals when they enter the sales barn, and paying for this extra weight may more than negate the economic benefits of a lower incidence of shipping fever in the calves when they reach the feedlot. As with all recommended management procedures, the economic aspects of the situation should be constantly monitored.

When shipping calves try to do it as quietly and comfortably for the calves as possible. Do not overcrowd the trucks and provide bedding for warmth and comfort. Insist that the trucks be cleaned and disinfected before picking up your calves.

Handling Calves upon Arrival at the Feedlot

Upon arrival at their destination, the calves should, again, be handled quietly and settled in with a minimum of fuss and excitement. Make sure they know where their water is located. If necessary, have several water containers in the corral and even splash water around them so that the calves know where to drink. If you do not know what feed, if any, the calves are used to, start with some good hay and gradually get them on to the feed they will be having later on.

Do not put the calves in a windy location and provide shelter with plenty of bedding. If necessary sprinkle the corral with water to keep the dust down.

Preventative Medicine

Following the arrival of calves at the feedlot many people rely on preventative medication to reduce shipping fever to a minimum. There are two general methods. One is to

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Preventing Shipping Fever in Calves (cont'd)

medicate the drinking water with such drugs as the sulfas and vitamin A for the first 10 - 14 days, and to delay handling procedures for vaccinations, etc. for three to four weeks. The other is to inject all the calves when they arrive with vitamin A and D and to do all necessary vaccinations. Remember neither procedure is a substitute for good management.

Constant surveillance during the first two weeks in the feedlot, with several checks daily for signs of sickness, will pay dividends because an early start is essential for the successful treatment of shipping fever. Consult your veterinarian regarding the type of drug to use and dosages. Many cattlemen use the wrong drugs or the right drugs at too low a dosage with the result that by the time proper medication is administered, the animal is beyond recovery.

Remember, the key factors in preventing and treating shipping fever are minimal stress and early treatment with the correct medication.

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October 30, 1978

FOR IMMEDIATE RELEASE

WARBLE TREATMENT SAFETY PRECAUTIONS

Safety is an important point to bear in mind when treating cattle for warbles.

Ross Gould, livestock supervisor with Alberta Agriculture, points out that there is an increasing risk of a harmful reaction from treating cattle that carry a heavy grub infestation as the fall progresses into early winter. "This risk," he says, "is very much reduced in those cases where last year's treatment program was effective and little gadding was noticed during the summer."

It is normally reasonably safe to treat cattle in southern Alberta (south of Highway No. 1) until late in October. Further north, cattle rarely show any adverse reactions to treatment before December 1. However, Mr. Gould advises cattlemen who have any questions about the safety of late fall or early winter treatment to consult their veterinarian, district agriculturist or agricultural fieldman.

Since insecticides, like any powerful chemicals, can cause serious side effects and even poisoning, animals that have been treated with them should always be carefully watched for 48 hours. The side effects can produce inflammation in the gullet or spinal area, the symptoms of which may be bloat, paralysis, stiffness, staggers and other forms of unnatural behavior.

It is also important to remember that not all cattle can be treated with a systemic insecticide. Only those that are healthy and not under stress should be treated. This means that animals that have just been weaned or castrated should not be treated.

Systemics should not be used on milking dairy cows because they will contaminate the milk. Cows that are producing milk for human consumption can be treated only in the spring with the contact insecticide, rotenone.

Other cattle that should not be treated for warbles are those that are due to calve within three weeks or that have calved within three weeks of the time of treatment. Calves which weigh less than 135 kg (300 pounds) should not be treated either.

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Warble Treatment Safety Precautions (cont'd)

Systemic insecticides can be sprayed on, poured on or "spotted" on as a concentrated solution. When cattle have to be corralled for treatment, the treatment should be delayed until they have calmed down, and the manufacturer's directions should be carefully followed to ensure that the dosage is correct.

Mr. Gould says that farmers who use warble control insecticides should always protect themselves against coming in contact with the chemical or inhaling the vapor. They should wash well after treating the cattle and have their clothes laundered before using them again. They should also wear recommended clothing and a face mask when applying an insecticide with a spray.

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October 30, 1978

FOR IMMEDIATE RELEASE

PERFORATED PLASTIC SUBSURFACE DRAINAGE

Alberta Agriculture, in co-operation with two Peace River farmers and Alberta Environment, is carrying out a five-year research project to evaluate the use of perforated plastic subsurface drainage pipe to remove excess surface water without erosion.

A preliminary design was done in the fall of 1977 on two sites, one in the Hawk Hills area and one in the Spirit River area. The two sites drain about 30 acres with portions being very "peaty". Licensing was approved in the spring of 1978 and tenders were called. The bid by C. W. Farmland Reclamation of Olds was accepted.

Construction was begun in mid-July and completed in early August after a short delay caused by wet weather. A total of 28,000 feet of four and six-inch pipe was installed two to six feet below the soil surface by a crawler tractor and a drainage plow. The grade on the pipe was automatically controlled by a laser plane system which greatly increased installation speed.

Recording equipment will be installed by Alberta Agriculture to monitor the water flow during the spring runoff. Crop performance will also be monitored and water quality checks done to evaluate the usefulness of the system for drainage as well as to detect any possible contamination of surrounding surface water by leached chemicals flowing out of the tile system.

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October 30, 1978

FOR IMMEDIATE RELEASE

APPLYING FERTILIZERS IN THE FALL

The fall application of fertilizers to both cereal and forage crops is becoming increasingly popular, mainly because it reduces the spring workload.

Doug Penney, soils specialist with Alberta Agriculture, points out that nitrogen should not be applied to cereal crops until after the first killing frost or until the soil temperature is less than 40°C. "As well as preventing the nitrogen from being used by weeds and volunteer growth, late fall application will prevent it from being lost to the atmosphere," he says. "This is particularly important when urea is being used."

Nitrogen fertilizers can give good results when applied in the late fall providing you do not apply them to land that is subject to flooding or which remains saturated for several days after the spring run-off; providing you do not apply them to soils that are very sandy (the fertilizer may leach below the plant root zone) and providing you do not apply them to land that you are planning to use delayed seeding on the following spring to control weeds.

According to Mr. Penney, late fall is also an excellent time to apply both nitrogen and phosphate fertilizers to forage crops, providing they are not growing on land that is subject to flooding or which stays wet for sometime after the spring run-off. The advantage of fertilizing forage crops in the fall is that the nutrients will then be available to the plants when they start growing in the early spring.

Mr. Penney says all fertilizer programs should be carefully planned, and soil testing should be part of them.

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Alberta
AGRICULTURE
COMMUNICATIONS

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October 30, 1978

FOR IMMEDIATE RELEASE

AIRDRIE DISTRICT OFFICE

Alberta Agriculture's district office that opened in Airdrie recently and the Calgary office will serve the municipal district of Rockyview, adjoining parts of I.D. 8 and the towns and villages in the area.

It is not proposed that there will be any boundaries between the areas served by the two offices in the municipality, which will require a considerable amount of co-ordination and communication. Because of its location, Airdrie will probably tend to serve the northern part of the district with Calgary serving the more southerly areas and probably a larger proportion of acreage holders. However, clients should feel free to contact either or both offices.

Don Macpherson, who has been one of the district agriculturists in Calgary for the past five years, is in charge of the Airdrie office. Karen McDougall, district home economist in Calgary, will also serve Airdrie on an office day basis. Kathleen King is the receptionist. Both regional and area staff will be available for consultation.

The new office in Airdrie is located in the new Provincial Building which is situated at the intersection of Main Street and First Avenue North. The mailing address is Box 1170, Airdrie, Alberta, T0M 0B0 (Telephone 948-5152).

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October 30, 1978

FOR IMMEDIATE RELEASE

DISTRICT HOME ECONOMIST APPOINTMENTS AND TRANSFERS

The head of Alberta Agriculture's home economics branch, Vera Macdonald, has announced the following district home economist appointments and transfers.

Marilyn McNeil

Marilyn McNeil has been appointed district home economist at Rimbey following the promotion of Mary Guise to the position of home economist at the Home Economics Laboratory in Edmonton. Ms. McNeil took her training in the Olds extension office.

Gladys Balog

Gladys Balog has been appointed district home economist at Coronation, formerly served from the Stettler office except for a period of eight months. Ms. Balog took her district home economist training in the Camrose office and was acting district home economist at Ryley while Diane Luke was on educational leave.

Karen Campbell

Karen Campbell was recently transferred to the position of district home economist at Rocky Mountain House from Three Hills where she held the same position. Her transfer followed the resignation of Linda Caldbick who married and moved to Calgary.

Laura-Marie Kirchner

Laura-Marie Kirchner has been transferred to the Warner office.

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AGRI-NEWS

November 6, 1978

FOR IMMEDIATE RELEASE

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Alberta
AGRICULTURE
COMMUNICATIONS

Phone (403) 427-2127

November 6, 1978

FOR IMMEDIATE RELEASE

CATTLE PRICE AND SUPPLY OUTLOOK

The Canadian price outlook for cattle continues strong for the fourth quarter of this year, and prices for the first quarter of 1979 are currently expected to be steady to higher than those anticipated for the next three months.

The average price, basis Calgary, for the following categories in the fourth quarter are expected to be as follows: A1 and A2 steers – $65 to $69 per hundredweight and at times late in the fourth quarter reaching the low $70 per hundredweight level; feeder steers weighing 800 pounds and over – the low $70 per hundredweight range with prices at times reaching the mid-$70's. Light weight (400 to 600) feeder steers – the mid-$80 per hundredweight range and at times going over the $100 mark (an all-time record); D1 and D2 cows – $47 to $50 per hundredweight and at times going higher.

U.S. prices, basis Omaha, for choice slaughter steers in the fourth quarter are forecast to be in the high $50 per hundredweight range and at times to reach the low $60 level. U.S. prices for the first quarter of 1979, like those in Canada, are expected to be steady to higher than prices anticipated for the fourth quarter of this year.

Maurice Kraut, market analyst with Alberta Agriculture, reports that Canadian cattle slaughter has declined by 9 per cent so far this year compared with the 1977 level, while Alberta's cattle slaughter had declined by more than 14 per cent.

Canada's net trade performance in beef and veal to the end of September 1978 indicates that this country is still a net importer - - - imports exceeding exports by 63.5 million pounds. "Exports of live slaughter cattle to the U.S. (primarily cows), have been mainly responsible for the increase in Canada's net import position," Mr. Kraut says.

Supply Situation

Mr. Kraut reports that the long awaited beginning of the expansion phase of the North American cattle industry has not yet occurred. He points out that both Canadian and U.S.

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Cattle Price and Supply Outlook (cont'd)

cattle inventories were down by 7 per cent as of July 1 compared with a year earlier, indicating that North American cattle herds are still being liquidated.

The anticipated level of Canadian cattle slaughter to the end of this year points to the continuation of the same level of slaughter that was experienced during the first three quarters of the year. At this level, total cattle slaughter for 1978 will be down by approximately 9 per cent.

Mr. Kraut explains that attention must be paid to the entire red meat supply when evaluating the supply prospects for beef. Although domestic beef supplies are estimated to decline a further 16 to 20 per cent in 1979 from 1978 levels (this would normally indicate further large price increases), the supply of pork is a very important factor in the determination of beef prices.

Pork production is currently increasing so rapidly in Eastern Canada that it may soon go to an export basis. However, since Western Canadian pork production is increasing at a much slower rate, Western hog prices will continue on an import basis. "The net result of this situation," Mr. Kraut says, "will be that hog prices in the West will be higher than in the East. A further result is that cattle prices may be somewhat lower than might otherwise have been the case.

Conditions in the American beef and pork sectors are the other major factors affecting Canadian beef and pork prices. American domestic beef supplies for 1978 are anticipated to be down by 6 per cent from 1977. Beef supplies for 1979 are expected to be down by a further 10 to 14 per cent. "The increase in pork production in both 1978 and 1979 will not be nearly enough to offset the decline in beef production," Mr. Kraut says.

Another factor is that lower cattle inventories in the major beef exporting countries and an increasing beef demand will reduce the amount of beef available to North America from these sources during 1979.

- (cont'd) -

Cattle Prices and Supply Outlook (cont'd)

According to Mr. Kraut, the type of slaughter cattle marketed in North America for the balance of 1978 and into 1979 will be mainly grain-fed. "This," he says, "will put considerable upward pressure on the price of cows and other types of non-grain fed slaughter cattle. Because of the devalued dollar, the effect on Canadian prices will be to maintain a large price difference between Canada and the U.S. for the balance of 1978. It is anticipated that the price spread between grain-fed and non-grain fed cattle will decrease in the fourth quarter and that there will be a narrowing of prices between Canadian slaughter steers and cows.

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Correction

The third line in the second paragraph of the article entitled "Applying Fertilizer in the Fall" (October 30 issue of Agri-News) should read "is less than 4° C" NOT 40° C.

November 6, 1978

FOR IMMEDIATE RELEASE

AMMONIA IMPROVES FEEDING VALUE OF STRAW

by Ross Gould
Livestock Supervisor
Alberta Agriculture

Research carried out in Saskatchewan over the past few years has shown that the feeding value of straw can be greatly improved by treating it with the same anhydrous ammonia that is used as a fertilizer.

Reports presented at the Canadian Society of Animal Science meetings in Regina last summer showed that treating wheat straw with 3.5 to 5 per cent anhydrous ammonia by weight can increase its digestibility by as much as 10 percentage points and its crude protein value by five to seven percentage points. However, the researchers cautioned that farmers using ammoniated straw should be sure to have it analyzed so that they know its crude protein content. The scientists also warned that the mineral level in rations containing ammoniated straw may need to be increased because straw tends to be lower in both calcium and phosphorous than grass hay. They said vitamins A, D and E may also need to be supplemented when straw is fed.

Earlier work carried out in both Saskatchewan and Ontario indicated results similar to those reported at the Canadian Society of Animal Science meetings. The reports showed that ammonia-treated straw had crude protein levels of from 8 to 11 per cent and a dry matter digestibility level of from 41 to 47 per cent. These figures make ammoniated straw almost equal in value to average good grass hay from the point of view of both protein and energy.

Treatment Method

Ammonia can be applied to any stack that can be completely covered with 6 mil black polyethylene. A 12 m by 30 m (40' by 100') sheet will enclose 25 to 40 tonnes of straw, depending upon how tightly it was baled. A single sheet of plastic should be used wherever possible to cover the stack to prevent the ammonia from leaking out.

- (cont'd) -

Ammonia Improves Feeding Value of Straw (cont'd)

The plastic should enclose the stock snugly, and it should be held down with camouflage netting, old fish netting or a close network of twine and weights placed over the top. A belt placed around the stack midway to the top will prevent the plastic from billowing. Soil can be used to anchor the plastic to the ground and to seal the stack. If the plastic is not airtight the ammonia will escape into the atmosphere.

The next step is to insert an iron pipe with 3mm (1/8") holes drilled at 75mm (3") spacing into the stack at 3 to 5 m (10' to 17') intervals along the length of the stack. The pipe should be about 4.5 m (15') long and holes should be on the underside when it is inserted. It can be easily pushed into the stack with a small tractor and is then connected to the nitrogen anhydrous ammonia supply. An alternative method would be to use a pipe that runs the full length of the stack.

After the ammonia has been injected, the pipe is withdrawn, the hole is sealed over with plastic and tape and the stack is allowed to sit for about three weeks, depending upon the outside temperature and the moisture content of the straw.

The higher the temperature the faster the process. At 20°C the process takes 15 days, but at 0°C it can take up to 60 days. For best results the straw should be stacked and treated as soon after harvesting as possible.

Volume of Ammonia

The volume of ammonia injected into the stack still depend upon the temperature in the stack. Saskatchewan researchers have found that an application rate of 3.5 per cent by weight of ammonia per tonne of straw is enough in the fall. During winter and early spring, when the straw was cold, they found an application rate of 5 per cent was needed to give similar results.

At a rate of 3.5 per cent, each tonne of straw would require 32 kg (70 lb) of ammonia, and a 25-tonne stack would need 794 kg (1,750 lb) of ammonia. At that rate, it is estimated that the treatment would cost $16.50 per tonne of straw.

- (cont'd) -

Ammonia Improves Feeding Value of Straw (cont'd)

Feeding

Because the fumes from the residual ammonia in the covered stack can be very unpleasant, the plastic sheeting should always be removed from the upwind side of the stack. This practice will ensure that the fumes are carried away. If carefully handled, the plastic cover can be used again.

In Saskatchewan the problem of ammonia-treated straw being rejected by cattle (because of its strong odor when it is first removed from the stack) has been overcome by removing the bales from the stack five days before they are to be fed and by shaking them out before they are fed.

Results and Costs

Drs. J. Kernan and E. Coxworth of the Saskatchewan research station in Saskatoon reported their findings at the Regina meetings on an ammonia-treated straw feeding trial for wintering beef cows.

They compared the performance of cows fed 9.5 kg (21 lb) of brome hay with those fed 7.5 kg (16.5 lb) of ammoniated-straw plus 2.4 kg (5.3 lb) of oats. Results showed that the cows on the hay ration gained only slightly more over the winter than the ammoniated-straw group, and that there were no differences in calving problems or in the birth weights of the calves between the two groups.

Feed costs for the hay-fed cows were 56¢ per day compared with 44¢ per day for the straw-fed animals. The hay was valued at $55 per tonne, the straw at $15.50 per tonne and the oats at $66 per tonne ($1 per bushel).

If hay was $49.50 per tonne and straw $22 per tonne, the hay diet would cost 50¢ per day and the ammonia-treated straw diet would cost 51¢ per day. Hence, the Saskatchewan researchers concluded that it is only profitable to replace hay in the wintering rations of cows by ammonia-treated straw when hay is scarce and relatively expensive compared with straw.

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Ammonia Improves Feeding Value of Straw (cont'd)

The use of ammonia-treated straw may be attractive to those Alberta farmers whose hay crop was poor this year and who have a large supply of straw. However, in areas where the hay crop was good and is of suitable quality for wintering cows, it may be more profitable to buy hay than to treat straw at a cost of $16.50 to $22 per tonne.

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November 6, 1978

FOR IMMEDIATE RELEASE

COW–CALF ADVANCE PROGRAM EXTENSION REMINDER

Cattlemen are reminded that they can apply for an extension to their loan under the 1977 Cow-Calf Advance Program anytime up to 30 days after its due date.

The loan may be extended for up to one year from its due date or January 31, 1980, which ever comes first. An extension applies only to that portion of the principal amount of the loan that is not in arrears and borrowers must have paid up all interest that is due on the original loan. The interest rate on an extended loan will be one per cent per annum above the prime lending rate.

You can obtain further details on extending your loan by contacting the lending institution that processed your original loan under the 1977 Cow-Calf Advance Program.

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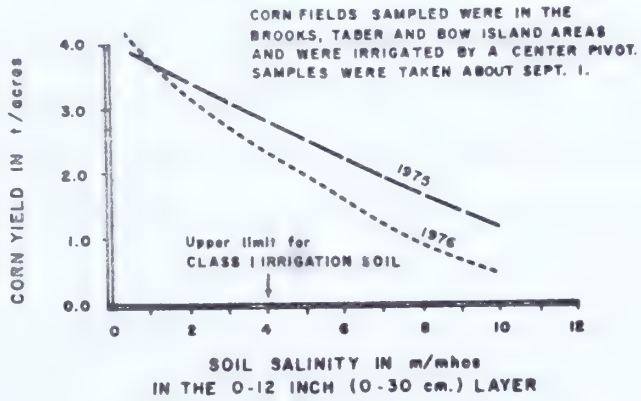
November 6, 1978

FOR IMMEDIATE RELEASE

SOIL SALINITY AFFECTS THE YIELD OF CORN IN SOUTHERN ALBERTA

by R. Colin McKenzie
Alberta Agriculture's Irrigation Division, Brooks

AVERAGE YIELDS OF SILAGE CORN
DRY MATTER AS COMPARED TO SOIL SALINITY



In 1975 and 1976 a number of silage corn fields in the Brooks, Taber, and Bow Island areas were sampled by Alberta Agriculture's irrigation staff to determine the influence of soil salinity on the yield of corn. All the fields sampled were irrigated by centre pivots.

The influence of soil salinity on the yield of corn was most highly correlated with the salinity of soil samples from the 0 - 6 and the 0 - 12 inch layers. The salinity of soil samples from these layers accounted for about 48 per cent of the differences in yield in the corn field. If the electrical conductivity of the soil in the top six inches was 3, the yield of corn was about 60 per cent of the yield on non-saline areas. If the electrical conductivity was 5, the yield was 40 per cent of the best yield and if the electrical conductivity was 8, the yield of corn was 25 per cent of the best yields.

These field trials indicated that reductions in yield of corn were more severe than had been reported from other trials in California with artificially salinized plots. Most experimental plots were irrigated frequently and the crop did not suffer moisture stress.

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Soil Salinity Affects the Yield of Corn in Southern Alberta (cont'd)

In the field, most pivot operators give insufficient irrigation compared with what is ideal for the corn crop. This is because of the difficulty of moving a pivot over two circles or because of the danger of getting the pivot stuck in a low wet spot in the field. Therefore, corn grown in the field suffers moisture stress as well as salinity damage. One of the main effects of soil salinity is to make it difficult for plant roots to absorb moisture from a saline soil.

In the Alberta Agriculture classification of irrigated soils, a soil with an electrical conductivity of less than 4 in the top two feet is capable of being rated a class 1 irrigation soil. According to these observations, even a class 1 soil may have areas where the yield of silage corn is seriously reduced by soil salinity. A farmer should know the salinity of his field and choose his crop according to the soil salinity.

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November 6, 1978

FOR IMMEDIATE RELEASE

KILLING TREE STUMPS

If you have cut down large trees or have had them cut down, you are probably wondering how you can get rid of the unsightly stumps and how you can prevent new sucker growth.

Andy Birch, Alberta Agriculture's district agriculturist at Stettler, believes the best line of attack is to kill the stumps and then to follow up with a method that will disintegrate them and the roots. If you have the stumps removed mechanically, the chances are you will have fairly large holes to fill in, and that you will get a considerable amount of resprouting from the deep roots after the roots near the surface have been torn out.

To kill the stump of a deciduous tree, Mr. Birch recommends applying a herbicide such as 2, 4-D low volatile ester to the freshly exposed wood. The application can be done at any time of the year, but doing it now will avoid many of the problems associated with spray drift.

To prepare the herbicide mixture, mix one ounce of 2, 4-D 96 ester with nine ounces of diesel fuel or oil. Then, using a paint brush, apply the mixture liberally to the cut surface of the stump. Mr. Birch says "The application should be liberal enough to allow the mixture to run down the sides of the root collar. This will ensure that it moves into the root system."

When the stump is dead, you can use saltpetre to disintegrate it. The saltpetre comes under such trade names as De-Stump and Stump Remover. The procedure involves drilling five or six holes in an average-sized tree to a depth of 10 or 15 inches. Then drill slanted holes to meet each of the vertical holes at the bottom. Fill all the holes with saltpetre and water and use wooden pegs to plug them. Then cover the pegs with plastic and leave them for eight to 10 weeks. After eight or 10 weeks soak the stump with kerosene. Wait 24 hours and then re-soak it and light it. With this procedure the stump should smoulder down to the roots, with little it any flame, and leave only the shell.

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November 6, 1978

FOR IMMEDIATE RELEASE

ODOR CONTROL IN RURAL WATER SYSTEMS

Alberta Agriculture's regional engineering technologists have recently received requests for information on what can be done about rural well water that smells like rotten eggs and has a bad taste.

Arnold Flather, engineering technologist at Airdrie, says that the foul odor and taste is usually caused by hydrogen sulfide. It can either occur naturally in well water or it can be caused by iron bacteria.

If the hydrogen sulfide is naturally present in the water, it can be removed by several methods. One of these is an iron filter. It will remove a small amount of hydrogen sulfide by oxidizing it and filtering out the sulfides. A second method involves installing a chlorine feeder and a sand filter. The hydrogen sulfide is oxidized by the chlorine and the insoluble particles are removed by a sand or crushed anthracite filter. A third method is to use chlorination and an activated carbon filter. Again the hydrogen sulfide is oxidized by the chlorine and the insoluble sulfide particles are removed by an activated carbon filter. A fourth method is aeration. When water is sprayed into a ventilated storage tank, the hydrogen sulfide separates from the water and either settles as sulfide particles or is drawn off as a gas by the ventilation system.

Which of these methods is used will depend upon such things as the concentration of hydrogen sulfide and other minerals in the water.

If the hydrogen sulfide is being caused by iron bacteria, shock chlorination is recommended. It involves mixing chlorine laundry bleach with water and syphoning it into the well.

If the hydrogen sulfide gas is present in the hot water heater only, it may be being caused by the chemical reaction of the sulfates that occur naturally in the water and the magnesium rod in the water heater. Although the removal of this rod (present to reduce corrosion

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Odor Control in Rural Water Systems (cont'd)

in the tank) will usually nullify the guarantee on a new tank, it will usually rectify the situation. The beneficial results will outweight the possible earlier deterioration of the tank, according to Mr. Flather.

Alberta Agriculture has two publications on odor control in rural water systems. One, entitled "Odor Control in Hot Water Heaters", describes the shock chlorination treatment of the hot water system and of the water heater, while the other, entiled "Hydrogen Sulfide Removal" outlines the iron filter, the chlorination and filtration systems and the aeration method of treating water systems. Both publications can be obtained from the publications office, Agriculture Building, 9718 - 107 Street, Edmonton, T5K 2C8.

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November 6, 1978

FOR IMMEDIATE RELEASE

ORDERING BREEDER SEED

Applications for obtaining cereal and oilseed breeder seed through the Canadian Seed Growers Association's (CSGA) Select Plot Growing Program must be received by Alberta Agriculture before December 31.

Seed growers who want to participate in the Select Plot Growing Program must have successfully produced the same pedigreed crop for the last three years, or have successfully produced it for three out of the last five years. They will then be eligible to apply for a variety of breeder seed of the kind of crop they have had experience in growing.

The maximum plot size allowed for a beginner (probationary) select seed grower is half a hectare (about one acre) and the minimum is a quarter of a hectare (about half an acre).

For an established select seed grower, the maximum plot size is one hectare (about 2 acres). An established select seed grower who wants to change from one variety to another in the same type of crop can request permission from CSGA in Ottawa to grow a select plot of both varieties for one season. However, the combined area of the two plots cannot exceed one hectare.

Application forms for ordering breeder seed and additional information on the Select Plot Growing Program can be obtained from Lydia Erickson, Secretary, Alberta Stock Seed Distribution Committee, Agriculture Building, 9718 - 107 Street, Edmonton, T5K 2C8 (Telephone 427-4057).

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November 6, 1978

FOR IMMEDIATE RELEASE

FARM RECORDS FAIR AT OLDS

Alberta Agriculture's farm business management branch will be holding a "Records Fair" in the Provincial Building (5030 - 50th Street) in Olds on November 22 and 23.

What is a "Records Fair"? It is a display of record keeping systems and is designed to enable those interested in record keeping to choose the system that would be most appropriate for his or her operation.

The fair is open to the public and to the Alberta Agriculture personnel. It is expected that it will be especially interesting to farmers and ranchers who are considering changing their bookkeeping systems.

Following is an outline of the November 22 agenda which will be repeated on November 23.

Section 1 — Seminar Room I	Section 2 — Seminar Room II
9:00 a.m. — Computerized Records	9:00 a.m. — Record Books
10:30 a.m. — Mini-Computers	10:30 a.m. — One-Write Systems
11:30 a.m. — Canfarm	11:30 a.m. — Farm Record Services
1:30 p.m. — Record Books	1:30 p.m. — Computerized Records
3:00 p.m. — One-Write Systems	3:00 p.m. — Mini-Computers
4:00 p.m. — Farm Record Services	4:00 p.m. — Canfarm

The different record systems will be set up in individual displays and specialists will be available for consultation.

People interested in attending the fair, which is free, are asked to notify the staff of the farm business management branch in Olds by telephoning 226-8421.

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November 6, 1978

FOR IMMEDIATE RELEASE

DISTRICT HOME ECONOMIST TRAINEE APPOINTMENTS

The head of Alberta Agriculture's home economics branch, Vera Macdonald, has announced the appointments of the following district home economist trainees.

Elinor Good

Ms. Good, originally from Saskatchewan, has been assigned to the Leduc office for training. She graduated last spring from the University of Alberta with a B.Sc. (home economics), having majored in clothing and textiles. She spent last summer working with the district home economist in the Sherwood Park office.

Debra Kaminski

Ms. Kaminski, a native Calgarian, has been assigned to the Lamont district office for training. She graduated from the University of Alberta last spring with a B.Sc. (home economics). Her major was foods and nutrition.

Fern Richardson

Ms. Richardson, who is from Winnipeg, Manitoba, has been assigned to the High River district office for her training. She graduated last spring from the University of Manitoba with a B.H.E. Her major was community nutrition.

Last summer she worked for the Saskatchewan Department of Health where she developed an infant feeding guide for professionals and three corresponding pamphlets for the public.

Diane Rennie

Ms. Rennie, who spent her early years in Montreal and Toronto, has been assigned to the Falher district office. She obtained her B.Sc. (home economics) from the University of Western Ontario in the spring of 1977.

After graduation she worked as a dietary aid at the Victoria Hospital in London, Ontario.

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District Home Economist Trainee Appointments (cont'd)

Nan Witman

Ms. Witman, a native of Smithers, B. C., has been assigned to the district office in Wetaskiwin. She obtained her B.Sc. (home economics) from the University of British Columbia last spring.

She was director of the Community Services Association in Smithers and a member of the board of Smithers' Special Services to Children Society (both voluntary positions) and was a community service worker last summer for the probation officer in Smithers.

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AGRI-NEWS

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November 13, 1978

FOR IMMEDIATE RELEASE

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Alberta
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November 13, 1978

FOR IMMEDIATE RELEASE

ALBERTA WINS WORLD WHEAT CHAMPIONSHIP

The Deurloo family of Granum, Alberta, has won its second consecutive world wheat championship at the Royal Agriculture Winter Fair in Toronto.

Chris Deurloo's sample of Chinook wheat took the same wheat championship this year that his wife's durum sample took in 1977. The Deurloos also placed first in the durum wheat class; second and third in the open class; second in the two-row barley class and fifth in the open flax class.

This is the eighth time in the last 11 years that Alberta exhibitors have won the world wheat championship.

Other world championships at the Royal went to J. H. Tolton of Brenton, Manitoba, for oats; Alex J. Blackhall of Aberdeenshire, Scotland, for barley; Frank Jacobs and sons of Fox Warren, Manitoba, for flax and Marguerite Norrington of Melton, Ontario, for rye.

Tony Crooymans of Bow Island, Alberta, exhibited the top pedigreed seed sample and was awarded the Canada Seed Growers' Association trophy. His entry was Neepawa wheat.

Albertans also swept the top four places in the pedigreed alfalfa class. Dennis Peterson of Tilley placed first, S. and A. Seed Farm Limited of Brooks placed second and fourth and Svend Rasmussen of Brooks placed third. Peterson also placed first in the alfalfa (any kind) class.

The following Alberta exhibitors were all in the top five places: James Millar of Crossfield took the second prize in the pedigreed oats class and A. G. Strain of Foremost took

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Alberta Wins World Wheat Championship (cont'd)

the second prize in the pedigreed flax class. Peter Gerwatowski of Debolt placed second in the pedigreed fescue class, Vernon Hill of Beaverlodge placed third, Wilfred Epp of Bear Canyon fourth and C. S. Vos of Keg River placed fifth. The Cunningham brothers of Kelsey finished first in the pedigreed rapeseed class, Bob Thirsk of Kelsey placed second, Frank Kastellic of Sangudo placed fourth and Lawrence Rude of Tofield placed fifth. Kastellic also placed first with his first-cut timothy. Ernie B. Kvarnberg of Calmar placed fourth in the pedigreed timothy seed class and Mrs. John Holman of Wayne placed fourth in the hard red wheat class.

The Pyrcz brothers of Edmonton placed sixth in the pedigreed rapeseed class and J. and D. Langier of Falher placed eighth in the red fescue class.

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November 13, 1978

FOR IMMEDIATE RELEASE

YEAR-END TAX MANAGEMENT

by
George Geldart
Farm Business Management Branch
Alberta Agriculture

A little tax planning between now and the end of 1978 could save you many tax dollars and leave you more money for family living or farm investment.

Tax planning or management necessitates assessing the needs of the entire farming operation. Unfortunately, many of us think that tax management merely means filling out our income tax return before April 30 or getting the final line on the tax form to read zero! However, the important thing to remember from the point of view of tax management is to maximize income after tax; not to minimize tax obligations.

If your only objective is to reduce your taxes, you will end up reducing your income and/or assets as well. For example, if you spend $3,000 to purchase unnecessary farm supplies to save $500 in taxes, you will have tied up $2,500 that could have been generating more income or could have been used to improve your farm operation. It is possible to direct a farming operation towards achieving both personal and business goals by looking at the after-tax financial effects of production, marketing and tax strategy alternatives.

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Year-End Tax Management (cont'd)

If your objective is to maximize your after-tax income, you should know before December 31 what your potential tax liability is going to be so that you can take the appropriate action. You will need to know the amount of income already generated from your business as well as your farm expenses. This should give you total income and expenses to date. If your farm records are in good shape, this should be easy. If your records have been neglected, it may be the most difficult part of tax planning. Remember, a good set of farm records is very important, not only for tax purposes but for helping you assess your operation's strong and weak areas, and for obtaining credit.

If your objective is to minimize your tax payable within the provisions of the income tax laws, you should be aware of the general provisions of the Income Tax Act and the strategies available for tax planning. If you do not have a specific course of action in mind, or if problems arise, you should acquire the information you need regarding tax implications from a tax advisor and/or Revenue Canada.

When determining your potential taxable income and the tax strategies that would be useful for your operation, you should follow these steps:

1) Determine which method of reporting your income for tax purposes you are using. Revenue Canada allows farmers to report their income by the cash method or by the accrual method. Most farmers report their taxable income by the cash method because

Year-End Tax Management (cont'd)

it allows them greater flexibility in adjusting taxable income levels. With this method, income is reported when it is received and expenses are reported when they are paid. With the accrual method, income is reported when it is earned and expenses are reported when they are incurred.

2) Ensure that your calculated potential taxable income is correct. Double check your calculations to be sure that:

a) only interest has been deducted as a cash expense on loan payments. Payments on principle are not deductible.

b) government subsidies on rebates that were received are reported as income for this year, even if they were designed to reduce expenses or to compensate for losses in previous years.

c) loans received are not included as income

d) tools and equipment purchased for more than $200 are reported as capital assets

e) all small expense items are included

f) the business portion of expenses is included. Remember that a quarter of house maintenance and utility expenses and up to two-thirds of car expenses can usually be deducted as business costs.

"The Financial Management Package", available from district agriculturists or the Farm Business Management Branch (Box 2000, Olds, TOM 1PO), contains a work-sheet which is

Year-End Tax Management (cont'd)

designed to help farmers calculate projected farm income and expenses for income tax planning.

Once you have determined what your projected taxable income is likely to be, the question to consider is: Do you want to adjust it, and if so, in which direction?

To decrease net and taxable income, you might consider the following strategies:

i) Make payments on account payable (i.e. pay off fertilizer, fuel and feed company bills)

ii) Buy fertilizers and chemicals that you intend to use next year. To be eligible as a tax deductible expense, fertilizers and other chemicals must be delivered and paid for before the end of this year.

iii) Buy and take delivery of prepared feed, fuel and other supply items that will be required next year. They too must be paid for before December 31 to be eligible as expenses.

iv) Pay wages to your children if they worked on the farm. The wages should be reasonable for the children's ages and the work they carried out.

v) Postpone some product sales or income until 1979. This is relatively easy to do with grain by using deferred delivery tickets. In the case of livestock, you could sell on an account receivable, which means that you dispose of the livestock, but do not receive the money until next year. However, since the person buying the

Year-End Tax Management (cont'd)

livestock probably wants to use the deduction, it may not be easy to sell animals this way.

vi) Buy machinery if you are going to need it next year. You may as well use the capital cost allowance deduction on your 1978 income as wait until 1979. If your purchase is eligible, you could also use the 5 per cent investment tax credit, (7½% in special designated areas) to reduce your 1978 tax payable.

vii) You could increase your charitable donations or political contributions within the regulated limits to reduce your personal income.

The following strategies can be used to increase net and taxable income if you want to claim previous business losses or to ensure that you use your personal exemptions.

i) purchase farm supplies on supplier credit

ii) sell livestock or feeds before the year-end

iii) sell grain inventories

iv) use the livestock inventory adjustment provision. Farmers who have livestock, and who file their income on the cash basis, can add to their year's income any amount up to the fair market value of livestock (except the basic herd) on hand at the end of the taxation year. However, the value added to this year's income must be deducted as an expense next year.

Other strategies such as the purchase of a registered retirement savings plan or registered home owner's savings plan can be used to reduce taxable income in the long run.

Year-Tax Management (cont'd)

However, they require planning ahead. Still another strategy is five-year block averaging, which can be used to level out earnings over a period of five years and reduce the total tax burden.

In looking at tax management, you should assess the needs of the entire farming operation. It is important to keep in mind that what is advantageous for someone else may not necessarily be good for your situation. Keeping good records can tell you what your specific situation is and can be used to reveal which tax alternatives are best for guiding your farm business towards economic and personal goals.

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November 13, 1978

FOR IMMEDIATE RELEASE

CONTROLLING RABBIT DAMAGE TO TREES AND SHRUBS

The snowshoe hare (also referred to as the snowshoe rabbit or bush rabbit) population is on the rise again in Alberta. Although damage to ornamental trees and shrubs is not likely to be severe this winter, it is expected to be a problem next year and for several years to come.

According to Cliff Barrett, supervisor of animal pest control with Alberta Agriculture, most of the damage this year is expected to be confined to areas that are close to heavy bush, a ravine or a good source of food such as a clover stand.

He suggests that anyone who anticipates rabbit damage and who has only a few trees should wrap their trunks in burlap or use an excluder such as poultry wire, braced away from the trunk of the tree.

One of the best ways to protect a small plantation of trees is to surround it with 36-inch (1 m) high poultry wire which has a 1½-inch (37 mm) mesh and to bury the bottom edge in the soil. A second layer may have to be added if the snow becomes deep.

Mr. Barrett says little can be accomplished by shooting, trapping, snaring or scaring rabbits in a large area where the population is high. He also warns against poisoning rabbits because of the danger to other forms of wildlife eating the poisoned carcasses.

A local rabbit population can be reduced by fencing off a lane that leads into a fenced trap area, but this method is not very practical because other rabbits will soon move into the area that has been cleared. Repellents are really the only practical form of protection when an area of trees is involved. They also give good protection against jack rabbits, mice and

- (cont'd) -

Controlling Rabbit Damage to Trees and Shrubs (cont'd)

deer.

Mr. Barrett suggests that people who want to protect their trees should order their repellents early in the summer to make sure they get them. There has been a shortage of these products this fall.

One mixture that is recommended as an effective repellent consists of Arasan (thiram) and asphalt. It can be either mixed at home or bought ready mixed. It should be painted or sprayed on the trunks and limbs of the tree to a height of two feet (60 cm) above the expected snow level in the late fall when the trunks are dry and when the temperature is above freezing.

An excellent home-made repellent for use in the late fall can be made by mixing one part Arasan 425 (liquid) or Arasan 75 (wettable powder) with 10 parts by weight of water emulsifiable black asphalt. It should be strained to prevent it from blocking the spray nozzle.

Another recipe for a home-made repellent that can be used in the late fall consists of 3 or 4 ounces of Arasan mixed with half a pint of a water-based paint in water to make up a gallon of spray. Since it is not known at the present time how toxic this mixture is to trees, it should not be applied to a tree that has special value to the owner.

After a sprayer has been used to apply any of these repellents it should be thoroughly rinsed with warm water followed by a solvent such as kerosene or varsol.

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November 13, 1978

FOR IMMEDIATE RELEASE

HOUSEHOLD HUMIDIFIERS

Every year with the onset of winter we hear a great deal of advertising directed towards potential purchasers of household humidifiers. Before going out and buying another humidifier if you already have one on your furnace, Alberta Agriculture's meteorologist, Conrad Gietz, suggests that you ask yourself the following questions:

Has my present humidifier been properly serviced? Can my house stand a higher level of humidity?

Mr. Gietz explains that the most suitable winter relative humidity in almost any home in Alberta is based on a compromise between one that would be ideal from the point of view of health and comfort and one that is low enough to avoid an undue amount of condensation or ice build-up on windows and other interior surfaces. Whether or not such a compromise is satisfactory will depend upon the construction of your house, particularly with regard to the windows.

Even in a well constructed house the winter level of relative humidity should be lower than the summer level because the cold outside air will cause condensation if the humidity goes above a certain level. Mr. Gietz says a relative humidity of 30 to 35 per cent is a good target to aim for during the winter months in a well constructed house.

The arctic air that is dominant in Alberta during the winter months contains very little water vapor (low absolute humidity). When this same air is heated indoors, the relative humidity drops so low that it may be difficult to even measure. "In practice", says Mr. Gietz, "the relative

- (cont'd) -

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Household Humidifiers (cont'd)

humidity is raised through the addition of water vapor given off by a humidifier, cooking, bathing, plants, people, etc." Extreme dryness affects the health and comfort of people and plants in the house.

If condensation or frost build-up becomes a problem when you raise the relative humidity in your house to a comfortable level, perhaps you should consider upgrading your windows and/or insulation. Such upgrading will also save energy.

If your problem is an uncomfortably low relative humidity, a new humidifier may be the answer, but you may find that it is much cheaper to have your old one serviced or even repaired. Whether old or new, most humidifiers require simple, but regular, servicing if they are to do their job efficiently.

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November 13, 1978

FOR IMMEDIATE RELEASE

PRECAUTIONS AGAINST SAMONELLA

Salmonella is the name of a genus of bacteria which have similar characteristics and are particularly prevalent in raw poultry.

Aileen Whitmore, Alberta Agriculture's food and nutrition specialist, stresses that great care must be taken when cutting or preparing uncooked poultry to prevent the bacteria from contaminating other food that will either be eaten raw or that has already been cooked. Salmonella bacteria can be very easily transferred to food that is not kept refrigerated via the hands, a knife, a cutting board, etc.

For this reason Ms. Whitmore urges anyone working with raw poultry to use a surface that can be thoroughly cleaned afterwards (not a wooden surface) and to always wash his or her hands afterwards.

Salmonella bacteria when present in sufficient numbers, as is likely to be the case with unrefrigerated food that has been contaminated from raw poultry, can cause severe diarrhea and abdominal cramps. These usually begin about 12 hours after the food has been eaten, but they can appear sooner or not until a week later.

Ms. Whitmore says frozen poultry should be thawed in the refrigerator, and that a whole bird should be cooked long enough to kill all the organisms in its interior cavity. In other words, the temperature in the cavity should reach 190°F on a meat thermometer which has been inserted between the thigh and the body of the bird (it should not touch the bone). The drum-

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Precautions Against Salmonella (cont'd)

stick can also be used to gauge whether the bird has been sufficiently cooked. If it moves up and down easily, and if the meat on its thickest part feels very soft when pressed between the fingers (protected with a piece of cloth or paper), the bird is cooked.

Ms. Whitmore points out that stuffing lengthens the time that it takes the temperature in the interior of a bird to reach a safe level. When a thermometer is inserted into the middle of the stuffing, it should read 165°F. "Anyone who does not have a meat thermometer would probably be wise to cook the stuffing separately from the bird", Ms. Whitmore says.

Eggs that are purchased from supermarkets are seldom contaminated with salmonella bacteria, but cracked eggs are a different story. Because of the risk of contamination, they should never be eaten raw.

Following is a list of the main preventative measures that can, and should, be taken against the possibility of salmonella poisoning.

. Thoroughly cook all food derived from animal sources, especially, fowl, egg products and meat dishes.

. Protect prepared food against rodent and insect contamination. Both are carriers of salmonella bacteria.

. Refrigerate all food that is susceptible to salmonella bacteria as soon as it has been cooked. These bacteria multiply rapidly in warm food. Although cold does not kill the bacteria, it will prevent them from multiplying.

Precautions Against Salmonella

. Be careful not to contaminate cooked foods with uncooked foods by washing utensils after they have been used and by keeping a cutting board for raw meat only.

November 13, 1978

FOR IMMEDIATE RELEASE

HUMIDITY, VENTILATION AND TEMPERATURE FOR HOUSE PLANTS

Did you know that the air in the average home in Alberta is too dry to please most plants? Except for cacti and succulents, plants require a fairly moist environment to function at their peak.

Humidity levels of 40 to 60 per cent are ideal for human comfort and health, but tropical foliage plant experiments have shown that plants are at their best when the relative humidity is close to 70 per cent. However, certain plants such as cacti, sanseveria, the bromeliads, philodendrons and schefflera will survive in a relative humidity that is as low as 25 per cent.

When plants do not have enough moisture in the air, their leaves are dull and have brown tips. These plants usually grow slowly. Hot, dry air also provides a perfect environment for red spider mites, thrips, and scale insects.

Alberta Agriculture's horticultural specialist, Chris Campbell, suggests the following alternatives for increasing the humidity around your plants.

. Use a large home humidifier and adjust it to provide a humidity that will suit your plants.

. Cover the bottom of a shallow tray with gravel or pebbles and fill it with water. Then put your plant pots on the gravel, making sure that they do not touch the water.

. Spray your plants regularly with a fine mist of water. You can get a special mister from a garden center or you can use a squirt bottle like those used to disperse window cleaners.

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November 13, 1978

FOR IMMEDIATE RELEASE

BARRHEAD ONE-DAY SEMINARS

Alberta Agriculture's farm business management branch plans to hold a series of one-day seminars in the Barrhead region from November 1978 to March 1979.

Each seminar will be held at a different location in the region and will consist of an in-depth discussion of the topic that has been chosen for that day.

The first seminar is scheduled to take place at Westlock on November 15. The topic will be Feedlot Management, and the speaker will be Richard Farr, of Farm Feeders Incorporation, Greely, Colorado, U. S. A. Mr. Farr is involved in a very large feedlot and is considered to be the best speaker available on feedlot management.

Topics being arranged for the other seminars scheduled for the region include:

Off-Farm Investment. The speaker here will be Dian Cohen, economist, freelance writer and broadcaster from Montreal. Ms. Cohen has a national reputation for competence on a variety of topics and is an outstanding speaker who is frequently heard on the CBC.

Changes in Consumption Patterns. The speaker on this topic will be Jan Hogan, of the University of Minnesota. She has conducted many successful seminars on this subject and has been highly recommended as an excellent speaker.

Capital Gains Tax Management. The speaker on this topic has not yet been arranged.

Further details and dates of the seminars and application forms can be obtained from your local regional office. The registration fee will be nominal.

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November 13, 1978

FOR IMMEDIATE RELEASE

ADC GENERAL MANAGER OF LENDING HIRED

L. C. Ordze, chairman of the Agricultural Development Corporation's (ADC) board of directors, has announced the hiring of Peter Kavanagh as general manager of lending.

Mr. Kavanagh will be directly responsible to the board chairman for all the lending operations carried out by ADC. These include both farm and agri-business programs which were responsible last year for $31,000,000 in direct loans and guarantees.

Originally from Great Britain, Mr. Kavanagh has had considerable experience in establishing and managing lending operations in various countries. With this background of experience he will, undoubtedly, prove a valuable member of the corporation's management team and will ensure that primary producers and agri-business continue to receive the quality of counselling and financial services that is now being provided by the corporation.

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AGRI-NEWS

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FOR IMMEDIATE RELEASE

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FOR IMMEDIATE RELEASE

A VACCINE FOR CALF SCOURS

A vaccine against the most common bacterial form of calf scours could be on the market within two years.

That is the word from the Veterinary Infectious Disease Organization (VIDO) at the University of Saskatchewan, which reports promising results with four experimental vaccines in trials at the university's Termuende farm near Lanigan. Dr. Stephen Acres, who conducted the trials, says that if the more extensive tests planned for next spring are equally successful, the two years will be a reasonable bet.

An important requirement is to determine which of the four vaccines is the cheapest to produce. VIDO would probably not do the commercial production itself, but would enter into an agreement with an established company. Prelimary discussions with commercial producers are already underway.

Calf scours, technically called neonatal diarrhea, is one of the major contributors to livestock losses throughout the world. The Canadian beef and dairy industry alone loses an estimated $74 million annually. No vaccines against bacterial scours are presently available.

VIDO has made neonatal diarrhea its number one priority and its research program for this disease is thought to be one of the largest in the world. The four vaccines being tested are based on strains of *E. coli* bacteria which possess a surface feature called K99 antigen that enables the germs to fasten on to the wall of the small intestine where they multiply and produce toxins that cause the scours. Bacteria which carry the K99 antigen are believed to be involved in from 30 to 50 per cent of all cases of scours in calves that are less than two weeks old.

One of the experimental vaccines was developed by Dr. Acres from whole cells of *E. coli* that had been killed. Two were developed by VIDO collaborators, Dr. George Khachatourians of the university's Department of Medical Microbiology, and Dr. R. E. Isaacson of the National Animal Disease Center in Ames, Iowa, U.S.A.

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A Vaccine for Calf Scours (cont'd)

Dr. Khachatourians' vaccine consists of live "mini-cells" that are the product of an abnormal or misdirected division of parent *E. coli* cells and carry the K99 antigen. Dr. Isaacson's consists of biochemically purified K99 antigen. The fourth vaccine, containing partially purified K99 antigen, was prepared by VIDO scientist Dr. R. A. Kapitany.

To test their effectiveness, Dr. Acres administered them to separate groups of pregnant cows, all of which developed antibodies that were later passed on to their newborn calves in the colostrum or first milk. When the calves were 12 hours old, he challenged them orally with *E. coli* bateria. As a control, one group of cows received no vaccine but their calves were also challenged with the disease-causing *E. coli*.

Although the challenge was much more severe than would occur under natural conditions, less than 10 per cent of the calves from the vaccinated cows were affected compared with 90 per cent from the unvaccinated cows. Most calves from the vaccinated groups showed no signs of scours, and the few that did recovered within a few hours without treatment or loss of weight.

"What the results show," Dr. Acres said, "is that induced immunity to the K99 antigen provides protection against this type of scours." Next spring he will include many other common types of *E. coli* found in North America to determine how broad the spectrum of protection is. He will also conduct tests in some commercial herds to assess the effectiveness of the vaccines under ranch conditions. It will then be necessary to work on production technology and determine which of the four vaccines has the best cost-benefit ratio.

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November 20, 1978

FOR IMMEDIATE RELEASE

LAND LEASING CHARGES

The following information on current land leasing charges for cropland was collected by the Agricultural Input Monitoring System for Alberta Agriculture's farm business management branch.

This report is the first in a series that will be released periodically as new information is collected. Future reports will be based on data received by the farm business management branch from Alberta Agriculture's field staff.

The purpose of this and future reports is to provide Alberta farmers with up-to-date information on leasing arrangements and typical charges. More and more farmers are looking at leasing as opposed to purchasing as a way of freeing badly needed capital.

Cash Rent

Fifty-five per cent of the farmers surveyed reported that they had a cash rent agreement as opposed to a crop share agreement. The terms of their leases ranged from one to five years with three years being the most common. Eighty-five per cent had written agreements.

The annual cash rent ranged from $10 to $30 per acre (for non-irrigated land). Typical cash rents on soil rated as "good" for the area in question ranged from $15 to $20 per acre. The variation in rental charges varied just as much within a region as among different regions.

Crop Share Rent

Forty-five per cent of the farmers that were surveyed reported that they had a crop share agreement. The terms of their leases also ranged from one to five years, but only half of them reported a lease term of longer than two years. Only 25 per cent of these farmers had written agreements.

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Land Leasing Charges (cont'd)

All the agreements gave the landlord one-third and the tenant two-thirds of the crop. In 36 per cent of the reported cases, the landlord paid for one-third of the fertilizer and other chemicals.

The cash rent charge for land that was part cropland and part pasture was $7.50 to $20. Crop share agreements were on a one-third/two-thirds basis.

From the cases reported to date the variations in the type of lease arrangements and the in levels of cash rent were the same across the province.

Anybody who would like more information on land leasing and charges or help with a specific leasing arrangement should contact Neal Oberg, Farm Business Management Branch, Box 2 000, Olds, T0M 1P0 (Telephone 226-8421).

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FOR IMMEDIATE RELEASE

EFFECT OF FERTILIZER RATES ON YIELD AND PROTEIN LEVELS OF WHEAT AND BARLEY

by Phillip Scott
Alberta Agriculture's District Agriculturist at Three Hills

The possibility that, at sometime in the future, farmers may be paid for their wheat on the basis of its protein content has resulted in renewed interest in the ways that the protein level of crops can be raised.

Researchers have found that there are a number of factors that affect the protein level of both wheat and barley. There has been some evidence, for example, that delayed seeding reduces the protein content of wheat, and that dry years generally result in low yields and a high protein content. Wet years, on the other hand, result in high yields which are usually accompanied by a lower protein content. It has also been found that the protein content of grain is usually higher when cereals are seeded after a legume crop or after summerfallow compared with stubble seeding.

The broadcast application of nitrogen to nitrogen-deficient cereals in the shot-blade stage has been shown to increase yields if it rains soon after the application. However, if the nitrogen is applied after the shot-blade stage, it is not expected to increase the yield, but it could increase the percentage of protein.

A. M. F. Henning and D. G. Faris of the federal research station at Beaverlodge undertook a study in 1973 that was designed to determine the effects on yield and the percentage of protein of various rates of nitrogen in single and split applications to Galt barley. The results, which are also significant for wheat production, are as follows:

- An increase in soil nitrogen either by cultural practices or by a fertilizer application resulted in increased yields, protein percentage and protein yield of seed.
- Nitrogen fertilizer applied during seeding was the most effective for increasing seed yield.

- (cont'd) -

Effect of Fertilizer Rates on Yield and Protein Levels of Wheat and Barley (cont'd)

- Nitrogen fertilizer applied during the shot-blade stage was the most effective for increasing percentage of seed protein.
- The amount of seed protein was more closely related to seed yield than to percentage of seed protein.
- The lower the rate of nitrogen applied, the smaller the amount of nitrogen that remained in the soil after the crop was removed.

The above results indicate that although it is possible to increase the yield of cereal crops by applying a fertilizer during the shot-blade stage, the yield of total seed protein is more closely related to seed yield than to percentage of seed protein. This means that if the time comes when a higher price is paid for high protein wheat, farmers will have to look very closely at the expected increased returns from high protein levels and decide wheather the returns justify the added expense of the fertilizer and its application, and whether the returns would compensate for a possible reduction in yields.

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FOR IMMEDIATE RELEASE

FALL FORAGE REPORT

Forage supplies across Alberta appear to be adequate for the winter. Although hay quality in many areas is not the best, the quantity should be sufficient to compensate for the lower quality.

Southern Region

The forage supply in this region should be adequate to plentiful, but the overall quality is lower than normal.

South-central Region

The forage supply in this region appears to be adequate, but the quality of much of the hay is between fair and poor.

North-central Region

The forage supply in this region should be adequate although farmers in the eastern districts may find themselves somewhat short of forage if the winter is hard. The straw that was put up for feed is of poor quality.

Northeastern Region

Overall forage supplies in this region should be adequate except in the Ryley district which is expected to be short of all feed because of the wet field conditions that prevailed at harvest time.

Northwestern Region

Forage yields were near average in this region, but the quality of the feed is mixed. In general, forage supplies appear to be adequate. The quality of the straw that was put up for feed is poor, but the quantity will be sufficient to meet requirements.

Peace River Region

Forage supplies in this region may be somewhat short in some areas if the winter is hard, but the overall quality of the hay is good.

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Fall Forage Report (cont'd)

According to Ken Motiuk of Alberta Agriculture, Statistics Canada's September estimates show that the provincial average hay yield for 1978 was approximately two tons per acre compared with 1.7 tons per acre in 1977.

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FOR IMMEDIATE RELEASE

AUTOMATIC LIVESTOCK WATERERS

Anyone planning to buy an automatic livestock waterer should evaluate it on the basis of the following characteristics.

- Is it easily cleaned?
- Does it have an adjustable thermostat?
- Is the heating element replaceable?
- Is the waterer the right size?
- Is the waterer well insulated, preferably with expanded foam-type insulation?
- Does the waterer have a supply hose and an electric outlet?
- Does it have such options as a reflector under the electrical heating element or a hinged cover over the bowl, both of which can save energy?
- Is the waterer CSA or CGA approved?
- Are parts available locally?

Did you know that you need an electrical permit to install a new electrically-heated waterer? A number of animals have been electrocuted in the past because of the improper installation of livestock waters and because of improper grounding techniques. If a waterer is installed without an electrical permit, and animals are electrocuted, the chances are that they will not be covered by insurance. Electrical permit applications and farmstead wiring regulations can be obtained from Alberta Labour's electrical protection branch.

An outline of the procedures that should be followed when installing an electrically-heated or a gas-heated automatic livestock waterer is contained in a publication entitled "Automatic Livestock Waterers". Compiled by Alberta Agriculture's engineering field services branch, it also contains information on the maintenance and operating costs of the two types of waterers. The final section tells how to thaw out a frozen automatic waterer.

Copies of "Automatic Livestock Waterers" can be obtained from your district agriculturist or the publications office, Agriculture Building, 9718 - 107 Street, Edmonton, T5K 2C8.

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FOR IMMEDIATE RELEASE

A NEW USE FOR FOAMED POLYSTYRENE

Anyone who is concerned about pollution will be interested in a report recently printed in "Infoletter", which is published by the International Plant Protection Center at Oregon State University in the United States.

According to information received by Alberta Agriculture, foamed polystyrene cups, packaging and insulation can be recycled into a beneficial soil conditioner. An international manufacturer of this bead-like material says foamed polystyrene products can be passed through a grinder, chopped in a food blender or flaked with a cheese grater. The resulting tiny chips are said to aid plant growth, help prevent plant disease, increase soil drainage and aeration and to improve the thermal balance of the soil.

Although no indication is given on how many cups of coffee would have to be drunk to treat an acre of soil, the concept opens up some interesting conjectures. Could foamed plastic chips, impregnated with an insecticide, be incorporated into the soil to control soil insects? Could the chips be impregnated with a slow-release herbicide to control germinating weeds or could a layer of herbicide-impregnated chips be used as a mulch under ornamental and shelterbelt trees?

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FOR IMMEDIATE RELEASE

4-H SCHOLARSHIP WINNERS

The following is a list of this year's 4-H scholoarship winners in Alberta.

Except for the Norma Jean Gray Scholarship, the scholarships are awarded each year for academic achievement, outstanding contributions to 4-H and community involvement. The Norma Jean Gray Scholarship is new this year and is awarded for special 4-H leadership qualities, community responsibility and communication skills.

Canadian National Exhibition Scholarship

Gerald S. Smith of Vermilion

World of Beef and Stockman's Report Scholarship

Frances E. Davidson of Alliance

Joseph Pennington Memorial Scholarship

Norma J. Meilicke of Greencourt and Catherine M. Wallace of Barrhead

Alberta Wheat Pool Scholarship

Mary A. Richards of Red Deer; Bruce R. Hoar of Innisfail; Gloria P. Beniuk of Lac La Biche and Christine Beaver of Edmonton

Ingra Marr Memorial Scholarship

Mary-Ellen N. Jones of High River

Alberta Wheat Board Surplus Monies Trust Scholarship

Joanne F. Jakobsen of Tilley; Dale V. Elliot of Seven Persons; Kevin B. Beatty of Chauvin; Judy L. Beaudin of St. Paul; Rena M. Oldenburg of Vermilion; Diana B. Jensen of Paradise Valley; Allyce G. Hoff of Metiskow; Lucille M. Barnes of Brownfield; Sandra D. Seefeldt of Pollockville;

- (cont'd) -

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1978 4-H Scholarship Winners (cont'd)

Pamella D. Gordey of Peace River; Janet Brochu of Donnelly; Sherry L. Oatway of Crooked Creek; Jeanette M. Borle of Gunn; Anne D. Schreiner of Pickardville; Arlene N. Arlow of Busby; Arlene T. Carbert of Tees; Colette J. Moltzahn of Bashaw; Cathy J. Andrew of Tees; Donna M. Wray of Irricana; Alison L. Treacy of Hussar and Karen A. Lobley of Sundre

Norma Jean Gray Scholarship

Cathryn M. Handsaeme of Medicine Hat

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FOR IMMEDIATE RELEASE

PORK CONGRESS PRESIDENT ELECTED

A well known farmer and hog producer, Phil Mueller of Lacombe, was elected president of the Alberta Pork Congress at its recent annual meeting in Red Deer. He succeeds Ron Tolton who completed a two-year term in this office.

The pork congress is becoming well known as the focal point for all segments of the hog and pork industry in Western Canada and it holds the enviable record of having sold the highest priced pork carcass ($4,600) at its annual ballroom sale.

Dates for the 1979 Alberta Pork Congress are June 19th, 20th, and 21st. It will be held at the Exhibition Grounds in Red Deer.

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November 20, 1978

FOR IMMEDIATE RELEASE

ARTIFICIAL INSEMINATION COURSE FOR BEEF CATTLE

Olds College is offering an artificial insemination course for beef cattle from January 8 to 26, 1979.

Students who take this course will receive extensive training and practice in the use of artificial insemination techniques. Semen handling for both vials and straws will be covered as well as practical breeding problems, heat detection, hormonal control of breeding, synchronized breeding, sire selection and sire evaluation and proving.

Breeding problems related to nutrition and management will also be discussed in detail as will other factors involved in the successful use of artificial insemination in a beef herd.

The cost of the course including registration, tuition, materials, board and room (if required) is $295. The cost without board and room is $105.

Applications will be accepted on a first come,first served basis. The forms and further information on the course can be obtained from the Registrar, Olds College, Olds, T0M 1P0.

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Phone (403) 427-2127

November 20, 1978

FOR IMMEDIATE RELEASE

LIQUID PROTEIN DIETS NOT RECOMMENDED

Hundreds of people in both the United States and Canada have turned to liquid protein diets as a way of rapidly losing weight, but there are hidden dangers, according to Suzanne Tenold, food and nutrition specialist with Alberta Agriculture.

In this type of diet, liquid protein is substituted for solid food, thereby eliminating all carbohydrates. The total caloric intake per day from one of these diets ranges from about 200 kcal to 450 kcal, depending upon the particular dietary regime being followed.

Liquid protein diets are based on the theory that body fat will burn faster when only protein is consumed, and that muscle tissues, which are often broken down during dieting, will be preserved. However, according to Ms. Tenold there is no evidence to support this theory. "A rapid loss in weight," she says, "usually means a loss of body muscle and protein, and the lost weight is quickly regained when the person goes off the diet."

She points out that the side effects from a liquid protein diet can range all the way from nausea, dehydration and light-headedness to serious stress on the kidneys, liver and heart. Unless the person on one of these diets has regular check-ups, these side effects may go undetected until a serious problem has developed.

Ms. Tenold stresses that liquid protein diets should not be taken lightly. "They are not," she says, "for people who want to lose a normal amount of weight, but they may have a place in the treatment of extremely obese people, providing they are used under the direct supervision of a doctor in a clinical setting."

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November 20, 1978

FOR IMMEDIATE RELEASE

APPLICATION FORMS AVAILABLE FOR GRAIN DRYING PROPANE REBATES

Application forms are now available for rebates under the Grain Drying Propane Rebate Program announced earlier this fall by Premier Lougheed. They can be obtained from district agriculturists and propane dealers.

The program applies to farmers whose grain drying fuel requirements could not be met by a rural natural gas distributor, and it provides for a 10¢ per gallon rebate on all propane purchased for the purpose of drying grain between September 1 and December 31, 1978.

To obtain this rebate, farmers must apply on an individual basis, and they must submit receipts for the propane they purchased between September 1 and December 31. Applications will be accepted up to the deadline date of February 28, 1979.

Further information about the Grain Drying Propane Rebate Program can be obtained from district agriculturists or from the rural services division, Alberta Agriculture, 9718 - 107 Street, Edmonton, T5K 2C8.

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AGRI-NEWS

November 27, 1978

FOR IMMEDIATE RELEASE

THIS WEEK

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Alberta
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November 27, 1978

FOR IMMEDIATE RELEASE

COMPUTER PROGRAMS AVAILABLE TO ALBERTA FARMERS

Alberta Agriculture's Systems Engineering Branch has developed, adapted, and implemented a number of computer programs to help farmers analyze various design and management alternatives and to choose the one that is best suited to their specific operation. These programs are available free of charge to all farmers in Alberta.

They include the following:

. Propane versus Natural Gas Cost Analysis. The program performs a cost analysis of the two fuels in relation to the heating value of each and such factors as investment, interest, service charges and the price of the fuel.

. Farm Building Environmental Control Analysis. This program calculates the ventilation and heating requirements and annual energy consumption of greenhouses, machinery sheds and confinement housing for beef and dairy cows, sheep, hogs and poultry. Given a particular building system, the program will predict the inside temperature, the relative humidity and the effect of the sun in terms of solar heat gain.

. Forage Harvesting Systems Simulation and Analysis. This program can be used to evaluate various regular rectangular and large package baling systems on the basis of system performance and cost. It can be used to evaluate alternative equipment combinations and sizes. Two additional sections of the program should be available in the near future. They deal with silage and stacking systems.

- (cont'd) -

Alberta

Computer Programs Available to Alberta Farmers (cont'd)

. Solar Heating Systems Design. This program calculates the thermal performance of standard active solar space and water heating systems which use either air or water as the transfer medium. The program also performs a life-cycle cost analysis of the solar heating system being considered.

. Energy Analysis in Farm Houses. This program evaluates several methods of saving energy. They include thermostat setback, the use of additional insulation in the walls, attic or basement and the use of weather stripping. The program performs heat loss computations to calculate estimated possible savings for each method.

. Truss Design. This program calculates a design for specific clear-span gable-roofed trusses. It takes into account such factors as the size of the building, snow load and type of lumber used.

. Ventilation Design. This program will calculate the ventilation and heating requirements for cattle, swine and poultry buildings of various sizes and construction specifications.

. Farm Building Cost Analysis. This program will estimate the cost of constructing a farm building, provide a partial bill of materials and estimate the amount of labor required.

. Grain Dryer Simulation. This program simulates the mechanical drying of various crops and predicts dryer performance (energy consumption, drying rate, etc.) and drying costs.

. Grain Harvesting and Drying Simulation. This program simulates the total grain harvesting operation. It can be used to evaluate various grain harvesting and drying alternatives on the basis of the total system's performance and cost. It can also be used to evaluate alternative equipment combinations and sizes.

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Computer Programs Available to Alberta Farmers (cont'd)

Farmers who wish to use any of the above programs should contact their regional engineer, home design specialist or agricultural engineering specialist (they can be contacted through district agriculturists and district home economists) or write directly to the Systems Engineering Branch, Agricultural Building, 9718 - 107 Street, Edmonton, T5K 2C8.

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November 27, 1978

FOR IMMEDIATE RELEASE

PROMINENT CATTLE AND HOG DISEASES

Blackleg remained a serious disease cattle disease last year.

This fact was revealed in Alberta Agriculture's Veterinary Services' 1977 annual report, which has just been released. It is felt that the depressed economic conditions that prevailed last year in the cattle industry resulted in many cattle producers not vaccinating their animals.

Pneumonia was another prominent disease of cattle in 1977. Most pneumonias are caused by bacteria and viruses, but some are caused by hypersensitivity resulting from such things as hay dust and a change of pasture. The main viral agent identified in the pneumonia diagnosed at Alberta Agriculture's diagnostic laboratories last year was infectious bovine rhinotracheitis (IBR). In fact, this condition was responsible for several serious outbreaks of respiratory problems in Alberta feedlots.

Nutritional deficiencies also occurred in cattle herds in 1977. Selenium deficiency was diagnosed in herds where the owners had become complacent about supplementing this element. Copper deficiencies occurred on a localized basis. A widespread unthriftiness in calves in late summer and fall is the main symptom of this condition. Phosphorus, magnesium, calcium and vitamin A deficiencies were also common in Alberta cattle herds last year.

Lead was the main cause of cattle poisonings as has been the case in former years.

Hogs

The most prominent diseases in swine in 1977, as in previous years, were baby pig scours, other intestinal infections and respiratory conditions.

The porcine stress syndrome, trauma and nutritionally-related problems also accounted for a significant number of swine losses. Among the nutritionally-related problems, selenium and/or vitamin E deficiencies were very prevalent. Symptoms took the form of heart muscle and liver damage. The former occurred most frequently.

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Prominent Cattle and Hog Diseases (cont'd)

Transmissible gastroenteritis decreased in 1977 compared with 1976 and caused only a few problems. However, the number of pigs submitted to the diagnostic laboratories with various skin conditions, including mange, increased. Hemophilus pneumonia, a relatively new disease, was responsible for high losses on some Alberta swine premises and appears to be on the increase.

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CORRECTION: The last paragraph of the article entitled "Application Forms Available for Grain Drying Propane Rebates" (November 20, issue of Agri-News) should read: "Further information about the Grain Drying Propane Rebate Program can be obtained from district agriculturists or from the Engineering and Rural Services Division, Alberta Agriculture, 9718 - 107 Street, Edmonton, Alberta, T5K 2C8.

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November 27, 1978

FOR IMMEDIATE RELEASE

FORAGE VARIETY TESTING PROJECT

Alberta Agriculture's field crops branch has been carrying out a forage variety testing project in northern Alberta over the past four years to evaluate and demonstrate to farmers the practical adaptation and performance of some 50 commonly used varieties and species of grasses and legumes.

The legumes and grasses were sown in replicated four rod-row plots in the Bonnyville, Lac LaBiche, Smoky Lake, Westlock, High Prairie and Valleyview areas. The following conclusions have been arrived at after four years of observation and three years of collecting yield data.

- Wheatgrasses and ryegrasses are difficult to establish and will only produce modest yields in Northern Alberta. Growers would have to be prepared to wait two years for a satisfactory stand.

- An application of at least 50 pounds of nitrogen per acre per year is essential for the successful production of a grass crop.

- Orchardgrass, particulary the Kay variety, has given very promising results and may have a place in an intensive forage production system.

- The old standbys, brome, timothy and creeping red fescue, are all easy to establish and will remain the most popular grasses for hay and pasture. The difference between varietal performance within species has not been significant.

- The bluegrasses and red top grasses did not perform satisfactorily.

- The reed canarygrasses and meadow foxtail showed spectacular growth under humid conditions, but, unfortunately, the conditions that produced this heavy growth were not conducive to timely harvesting. It is felt that their best potential will be realized if they are grown for pasture in low-lying and wet areas.

- It is relatively easy to establish legumes without a companion crop, but they will not produce a crop the first year. Weed control can be achieved by clipping, but close and frequent clipping will also delay establishment of the stand and reduce its potential growth the following year.

- Sainfoin produces well in the first and second year, but its production declines rapidly the following year.

- Birdsfoot trefoil and cicer milkvetch are slow to become established and will not compete with weeds or produce as good a yield for the first two years as other legumes. While

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Forage Variety Testing Project (cont'd)

their production may improve later, the only place these two species have in a farm program is as a long-term pasture.

- No significant differences were found between commonly used varieties of red and alsike clover. Alfalfa varieties of the same type also gave yields that were remarkably similar to each other.

As expected the Western or "media" types of alfalfa, which are supposedly more hardy than other varieties because of their slow recovery characteristics, yielded less than the Flemish or "sativa" types. The latter readily produce a second and third cut, but even at that the varieties Rambler, Roamer and Beaver can make a remarkable showing.

Algonquin, a new alfalfa variety that was developed for Eastern Canada, promises to become a leader under northern climatic conditions.

During the four years that the testing was carried out in northern Alberta no winter-killing losses were experienced in any of the alfalfa varieties. The effect of taking a second cut was one of the most significant findings. A spectacular yield increase of about 50 per cent was noticed in the first cut and of 100 per cent in second cut on plots that had been cut only once the previous year.

Alfalfa grown under the soil and climatic conditions of northern Alberta does not fix nitrogen efficiently and responds poorly to the present methods of inoculation. Consequently, nitrogen fertilizer supplementation is still required for a good crop.

Because of limited equipment and drying facilities, and because the work was done under field conditions, only wet weights or cutting weights were recorded by those conducting the trials. Alberta Agriculture's forage crops supervisor, Larry Gareau, says "We do not feel justified in applying statistical analysis to the results, but we are confident that the trials will be useful to farmers who want to appraise the forage characteristics of various grasses and legumes and that they will enable us to arrive at better recommendations for the use of forage varieties under specific conditions."

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FOR IMMEDIATE RELEASE

IRRIGATION AND SUPPLEMENTAL NITROGEN POTATO TRIALS

by R. C. McKenzie
Alberta Agriculture's Irrigation Division, Brooks

Irrigation and supplemental nitrogen trials have been conducted by Alberta Agriculture's irrigation division on potatoes grown on a number of farms in the Brooks area to evaluate their response to various water treatments and levels of supplemental nitrogen.

The irrigation trials were conducted from 1974 to 1978 with Netted Gem potatoes (grown for five years), Norland potatoes (grown for three years) and Norchip potatoes (grown for two years). Three irrigation treatments, Water 1, 2 and 3, were used. Water Treatment 1 potatoes were irrigated least frequently and received a relatively larger volume of water during each application than the Water Treatment 2 potatoes. The Water Treatment 3 potatoes were irrigated the most frequently and received a relatively small volume of water during each application.

An average of 5, 7 or 8 and 12 irrigations were applied to the Water Treatment 1, 2 and 3 potatoes respectively. The average volume of water used by the crop from rainfall, irrigation and stored soil moisture for Water Treatment 1, 2 and 3 potatoes was 18.4, 19 and 22.9 inches respectively.

The average yields for the Netted Gem potatoes from 1974 to 1977 for Water Treatment 1, 2 and 3 were 23.6, 24.3 and 24.3 respectively. Canada No. 1 yields for the Norland potatoes were 18, 19.3 and 19.2 tons per acre for Water Treatments 1, 2 and 3 respectively.

The Netted Gem potatoes produced 3.4, 4.1 and 5.7 tons of Canada No. 1 small, and small tubers (used for small whole seed) from Water Treatments 1, 2 and 3 respectively. The yield of Canada No. 1 large and jumbo tubers was about twice as high for Water Treatment 1 potatoes as for Water Treatment 3 potatoes in the case of both Norlands and Netted Gems. An increase in the frequency of irrigation slightly increased the yield by increasing the number of tubers and by reducing the average size of the tubers.

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Irrigation and Supplemental Nitrogen Potato Trials (cont'd)

It is commonly believed that potatoes that are watered frequently will have less dry matter than potatoes that are irrigated only occasionally. However, the trials in the Brooks area showed that potatoes that were irrigated frequently had a higher dry matter content than those that were irrigated less frequently.

The average dry matter content in samples of Netted Gems taken from Water Treatment 1, 2 and 3 plots was 21.9 per cent, 22 per cent and 22.8 per cent respectively. Experiments conducted in Ontario have also shown that irrigated potatoes have a higher dry matter content than non-irrigated potatoes. Potatoes that have a continual supply of good moisture grow faster and are more mature at harvest time than those which suffer moisture stress and delayed growth.

The percentage of hollow hearts was highest in some years and lowest in others in the potatoes that received the most frequent irrigation.

The percentage of sugar in potatoes samples of Netted Gems on Water Treatments 1, 2 and 3 from 1974 to 1977 was 0.92, 0.87 and 0.87 respectively. A lower sugar content is desirable in potatoes used by the chipping industry.

The crude protein content of the potatoes was reduced by increasing the frequency of irrigation, which suggests that there may be more nitrogen needed by a potato plant that is irrigated frequently. As potatoes are becoming more important in the diets of people in many undeveloped countries, considerable interest is being expressed in developing high protein potatoes.

Available nitrogen in the top two feet of the soil plus the nitrogen applied at seeding time gave the potatoes in these trials about 160 pounds of available nitrogen per acre. An additional application of about 50 pounds was broadcast on half of each plot during early July of each year. This application was followed by irrigation to simulate fertigation (the application of liquid fertilizer through an irrigation system).

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Irrigation and Supplemental Nitrogen Potato Trials (cont'd)

When the yield data for 1975 to 1977 for the Netted Gem potatoes were averaged those that received the extra nitrogen in July yielded 4.7 per cent more total yield or gave an extra 1.1 ton of tubers per acre than those which received nitrogen only in the spring. However, the latter averaged 22.8 per cent dry matter compared with 22.1 per cent for those which received nitrogen in July. This situation indicates that most of the increase in yield from the potatoes that received the nitrogen in July was due to their having a higher moisture content than those that received nitrogen only at seeding time.

Since Norland potatoes have a shorter growing season than Netted Gems and in some years are fully mature by harvest time, the delay in maturity caused by the extra application of nitrogen is not as serious as is the case with Netted Gems. Norland potatoes gave yield increases similar to those of Netted Gems when the extra nitrogen was added. In some years they did not show a reduced percentage of dry matter when they received extra nitrogen in July compared with when they received it only at seeding time.

Other effects of adding nitrogen during the summer to both Norland and Netted Gem potatoes were:

- A higher protein content
- A lower sugar content.
- Usually more hollow hearts
- Usually a lower specific gravity
- A heavier yield of tops
- Later maturity
- Larger tubers
- More Canada No. 1 tubers
- Improved color of potato chips

Nitrogen added during the summer may delay the maturity and reduce the quality of the Netted Gems. If fertigation is used on potatoes, the nitrogen should be applied before flowering time.

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FOR IMMEDIATE RELEASE

WORM FARM PROMOTION

If you are offered a contract to set up a worm farm, examine the contract carefully and contact the Alberta Securities Commission to see if it is a security or a franchise and whether or not the firm is properly registered in Alberta.

This advice comes from the Better Business Bureau of Edmonton and Northern Alberta. It and its branch office in Grande Prairie have received inquiries about the National Worm Growers Exchange Inc. of Tennessee which was charged by the state of Tennessee last June for making false and misleading statements. In July a temporary injunction was issued prohibiting the firm from selling purchase agreements, etc.

"Before signing a contract to set up a worm farm, seek the advice of your lawyer," says the Better Business Bureau, "and consider all the costs that may be involved over and above the original investment." Explore potential markets carefully and evaluate your ability to care for and market the worms.

A general information sheet on worm farms can be obtained from the Better Business Bureau. The Edmonton telephone number is 482-2341; the Grande Prairie number is 532-7778 and the Red Deer number is 343-3280.

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November 27, 1978

FOR IMMEDIATE RELEASE

WINTERIZING FARM WATER AND SEWAGE SYSTEMS

If you have a farm and are planning to leave it unattended during a prolonged winter holiday, you will find the following procedure for winterizing your water and sewage systems useful. It is recommended by Alberta Agriculture's regional engineering technologists.

- Shut off the power supply to the pressure pump.
- Shut off the power or gas supply to the water heater.
- Drain all water lines, the pressure tank and the water heater. Compressed air may be needed to remove water from low spots in the water lines. Leave all the outlets open.
- Drain jet and piston pumps.
- Pour 4.5 litres of household strength chlorine bleach down the well and secure the lid or cap on the well.
- Lock the pump house door or pump pit lid.
- Drain the automatic clothes washer, automatic dish washer and water softener or filter as applicable. Leave an open outlet on each piece of equipment and shut off the power to each piece of equipment.
- Flush the toilet and remove the remaining water from the flush tank and trap. Fill all traps with mineral oil or a 50 per cent solution of glycol-base anti-freeze. It will prevent sewer gas from entering the house.
- Cover the septic tank with straw bales if the level of liquid in it is less than six to nine feet below ground level.
- Drain all hydrants and livestock waterers and disconnect them. Cover automatic livestock waterers with a cardboard or wooden box.

You can contact your local regional engineering technologist through your district agriculturist or home economist if you need technical information or advice concerning any aspect of your farm water supply, water treatment system or sewage disposal system.

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November 27, 1978

FOR IMMEDIATE RELEASE

PEACE RIVER REGIONAL SEMINAR

"Keeping the Farm in the Family" is one of the topics of special interest to farm managers in northern Alberta that will be presented at the Peace River Regional Seminar from February 12 to 14.

Outstanding speakers from across Canada and from the United States will discuss the following topics:

Corporations and Partnerships - When are they Viable?

- Machinery Management
  - Taxation Aspect
  - Grain Drying Systems
  - Machinery Size vs. Cost
- Proper Use of Credit
- Land Purchase - Lease or Buy?
- Grain and Oilseeds Marketing
- Cow-Calf Management
- Management of Stress
- Innovations in Crop Management
  - Herbicides
  - Fertilizers
- Role of the Farm Wife

Application forms are available from district agriculturist offices in the Peace River region. The registration fee will be $35 for a farm couple and $25 for a single participant.

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FOR IMMEDIATE RELEASE

MEMBER OF SECRETARIAT APPOINTED

N.S. Thompson, Chairman of Alberta Agriculture's Planning and Research Secretariat, has announced Maurice Kraut's appointment as a member of the Secretariat.

His main responsibility in his new position will be to identify, facilitate and co-ordinate current and future programs for a broad variety of agricultural areas. These include livestock, grains, land use and rural development.

Mr. Kraut is a native of Manitoba where he operated a farm feedlot for 20 years. He then enrolled at the University of Manitoba and obtained a B. Sc. and an M. Sc. (agricultural economics). He received his M. Sc. in 1976.

Following graduation, Mr. Kraut joined Alberta Agriculture as the livestock marketing economist. This position involved extension work, presenting outlook information for the livestock industry and livestock policy research.

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AGRI-NEWS

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FOR IMMEDIATE RELEASE

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FOR IMMEDIATE RELEASE

A PRODUCER-DESIGNER MARKETING SYSTEM

by Alan Toly
Alberta Agriculture's District Agriculturist at Claresholm

The Modern Beef Exchange in Claresholm, a producer-designer marketing system, has improved the market prospects for small lots of finished cattle.

It was set up seven years ago by a group of cattlemen, mostly ranchers, who were dissatisfied with the existing methods of marketing their fat cattle. Because of their small lots, they were unable to attract sufficient packer buyers to their yards to establish a competitive price, and when they transported their cattle directly to the packing plant, auction market or central stockyards, they had to accept the price of the day which they often did not expect.

To overcome these problems they opened an office in one of their member's homes, where cattlemen can list their animals on the basis of sex, approximate liveweight and breed as well as on a liveweight or carcass weight basis. The office is open between 8 a.m. and 10 a.m. on Monday mornings.

All packer buyers are informed of the animals being offered for sale. They can inspect them and have until noon the following Wednesday to put in their sealed bids. The seller can then decide whether he wants to accept the offer. The bidders on each lot are notified of all the bids and of the successful buyer. Prices are quoted F.O.B. the feedlot.

The cost of selling cattle through the Modern Beef Exchange is $1 per head, payable at the time of listing. If the seller decides against the bid, the exchange automatically relists the animals free of charge. Payment is conducted between the buyer and the seller.

The originators of the Modern Beef Exchange feel that this agency gives smaller farm and ranch feedlot operators a more competitive bid and eliminates having to take the animals out of the feedlot and sometimes having to transport them a long distance to take

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the price of the day. The packer buyers also like the exchange because they know where to locate cattle that are ready for market, which saves extra miles of driving.

About three years ago the exchange opened an office in Drumheller and it has recently opened another one in Westlock. The telephone number in Claresholm is 235-2122; in Drumheller, it is 823-6414 and in Westlock, it is 342-4434. The three offices will now accept collect calls from feeders anywhere in the province who have cattle ready for slaughter.

The Modern Beef Exchange welcomes your enquiries and listings.

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FOR IMMEDIATE RELEASE

RAPESEED PURITY DEMANDED BY INDUSTRY

What kind of rapeseed are you planning to grow next spring?

According to Phil Thomas, Alberta Agriculture's supervisor of oilseed crops, both the domestic and export markets are in the midst of a changeover to double-zero rapeseed (low erucic acid and low glucosinolate content). In fact, he says that next year the domestic crushers will crush only rapeseed that meets the double-zero standard, and that the export market, which purchases large quantities of Alberta rapeseed, is now starting to order double-zero rapeseed. Although this means that the market for rapeseed which is not double-zero will gradually dry up, the export demand for the older rape varieties (Span, Torch and Midas) should be adequate for the next couple of years.

The double-zero rape varieties available to Alberta farmers are Candle (a Polish variety), Tower, Regent and Altex (Argentine varieties). However, because of the short growing season here, only the Polish varieties can be grown on a large proportion of the province's rapeseed acreage.

Mr. Thomas says that contamination of the double-zero rape varieties is a major concern at the present time. He explains that the production from many thousands of acres of rapeseed grown from supposedly double-zero seed was rejected this year by the crushing plants because of contamination. Contamination means a direct loss to farmers in that the rapeseed can only be sold on the export market, which has a lower delivery quota than the domestic market.

"One way of helping to ensure double-zero rapeseed purity" Mr. Thomas says, "is to plant certified seed." Certified seed ensures genetic purity of low erucic acid and low glucosinolate content. However, even crops that are grown from certified seed can become contaminated if they are sown on land that has volunteer rape plants which are high in erucic

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Rapeseed Purity Demanded by Industry (cont'd)

acid and glucosinolate content. Hence, to avoid contamination, double-zero rapeseed should be sown only on land that is as free as possible of other rape varieties. Mr. Thomas points out that it takes only a few Torch or Midas plants to contaminate a crop of Candle or Tower rapeseed grown from certified seed. He reports that certified seed of the double-zero rape varieties will be in short supply next spring and suggests that anybody who wants it should contact his nearest seed supply dealer or his nearest seed grower now to find out where he can get it.

Farmers who are not able to get certified seed and decide to use their own seed or to buy commercial seed should make every effort to ensure that the seed has good germination and that it is low in erucic acid and glucosinolate content and free of weed seeds.

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FOR IMMEDIATE RELEASE

LIABILITY INSURANCE FOR FARMERS

Do you have comprehensive farm liability insurance? Are you aware of the importance of this type of insurance or do you feel that you do not need this protection?

There is always a risk in farming of farm workers or the public being injured. As the owner and occupier of the property, a farmer can be held responsible for such things as the injury or death of a salesman, buyer, canvasser and even a trespasser if the accident occurred because he did not maintain his property with due regard to the safety of others. Farm animals, especially dogs and straying livestock, often cause injury or property damage, and people can be injured by farm equipment if it is used negligently. Other examples of risk situations include the spread of a fire that is lit to burn grass or brush and the drift on to a neighbor's property of a chemical weed spray. Since the latter risk is not included in most farm liability insurance policies, you should make sure that any custom sprayer that you hire carries adequate coverage.

In addition, a farmer can be liable for the sickness, injury or death of an employee which results from his work. Farmers who hire transient workers are especially vulnerable to such claims. And farmers who sublet construction work on the farm may be held liable for injuries to a workman if the contractor has no insurance.

The most common liability insurance coverage used by farmers is that obtained through a comprehensive liability insurance policy or through a rider on their farm fire insurance policy.

Although comprehensive liability insurance policies can differ in minor

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Liability Insurance for Farmers (cont'd)

ways, the coverage is similar. Usually the insurance company accepts responsibility for investigating the claim and provides coverage up to a specified limit for injuries to people or damage to the property of others. If the insured is liable, the company pays the court costs, legal fees and any judgment up to the limit of the policy.

Most liability insurance policies also have a personal liability section, an employer's liability section and a product liability section. Some offer comprehensive liability insurance for a claim that may arise from the occasional use of the tractor off the farm.

Information on these sections of liability insurance policies and an outline of worker's compensation are contained in a publication entitled "Liability Insurance for Farmers." It can be obtained from district agriculturists and from the Publications Office, Agriculture Building, 9718 - 107 Street, Edmonton, Alberta, T5K 2C8.

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December 4, 1978

FOR IMMEDIATE RELEASE

MAKING BETTER USE OF BULL POWER

Research carried out in Australia on the social and sexual behavior of beef bulls mated in groups under pasture conditions shows that the serving capacity of bulls during a 19-day pasture mating was highly correlated with the number of services they achieved in a 60-minute yard test.

The head of this research and the author of a paper on "The Social and Sexual Behavior of Bulls", Michael Anthony de Burgh Blockey, reports that the yard test proved an essential part of the examination of bulls for breeding soundness. He reports that 42.5 per cent of the bulls that were found to be unsound for breeding would not have been detected without this test. Causes of impaired breeding ability were found to include penile abnormalities, degenerative joint disease and animals with a low serving capacity. Bulls with locomotor abnormalities displayed a significantly lower serving capacity than normal bulls.

The yard test also showed that scrotal circumference and serving capacity were not significantly correlated, and that age did not significantly influence serving capacity. Differences in the serving capacity of bulls were also found to be related to their somatic responses to threshold levels of testosterone rather than to the circulatory level of testosterone.

The yard tests involved restraining a number of cows in service crates, regardless of whether or not they were in heat. The bulls were sexually stimulated for 10 or more minutes before the test, and rated on the number of services performed in the 60-minute period. The bull-cow ratio varied from 5:4 to 5:2.

Other experiments showed that the test could be shortened to 40 minutes; that within age groups, the social ranking of a bull in its testing group did not influence its serving capacity and that bulls maintained their serving capacity at a high, medium or low level in successive tests.

The studies on the social and sexual behavior of beef bulls also showed that bulls of all ages compete with each other for cows that are in heat, and that a strict social order exists in

(cont'd)

Making Better Use of Bull Power (cont'd)

mixed-age groups and in similar age groups of bulls that are three years of age or older. In the mixed-age groups, social ranking was maintained by seniority. Here the serving activity of a bull was strongly influenced by its social ranking. An old, dominant bull was found to restrict the serving activity of his younger subordinates, and, in so doing, to reduce the pregnancy rate of the cow herd to which the mixed-age group of bulls was mated.

An accurate measurement of a bull's sexual behavior during pasture mating was his serving capacity, or the number of services he achieved in a mating period. It was found that groups of bulls displayed a wide variation in serving capacity during pasture mating, and that high-serving-capacity bulls impregnated a higher proportion of heifers on their first heat than bulls with a medium serving capacity. The result was that heifers mated to the high-serving-capacity bulls conceived significantly earlier in the mating period than those mated to bulls with a medium serving capacity.

Further information on the social and sexual behavior of beef bulls can be obtained from Ross Gould, Supervisor of Beef Cattle, Alberta Agriculture, 9718 - 107 Street, Edmonton, T5K 2C8.

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December 4, 1978

FOR IMMEDIATE RELEASE

MARKET GARDEN AND VEGETABLE PRODUCTION COURSES FOR EDMONTON AND CALGARY

Alberta Agriculture's horticultural branch is sponsoring three consecutive short courses for market gardeners in Edmonton and Calgary. They will be held in the Design for Living Building at the exhibition grounds in Edmonton from January 22 to 25, 1979, and in Room C, Agriculture Building at the exhibition grounds in Calgary from February 5 to 8.

The first course (Course A), entitled "Introduction to Market Gardening," is a one-day course for new market gardeners and for people who intend to start a market garden. Although no previous experience is required for this course, it is not intended for home gardeners. It will cover planning a market garden; vegetable production; management and marketing and government services available to market gardeners. It will also include talks by established market gardeners on how to start a market garden.

The second course (Course B), entitled "Small Fruit Production," is also a one-day course. It is designed for people growing, or interested in growing, small fruit on a commercial scale. Although not mandatory, prior experience in growing small fruit is desirable. The course will cover the production of strawberries, raspberries and saskatoons and disease and insect identification and control. Established growers will share their experiences in this area.

The third course (Course C), entitled "Advanced Vegetable Production," is a two-day course designed for people who have had prior market garden experience. In addition to new production techniques and marketing, it will cover greenhouse design and management; early crop production; transplant production; weed control; equipment and accounting. Another feature of the course will be talks by established vegetable growers.

The registration fee for each of the courses will be $5.

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Phone (403) 427-2127

Market Garden and Vegetable Production Courses for Edmonton and Calgary (cont'd)

Anyone interested in taking one or more of the courses should contact one of the following people for an application form or for more information.

Ralph Trimmer
601 Agriculture Building
9718 - 107 Street
Edmonton, Alberta T5K 2C8
Phone: 427-5337

Lloyd Hausher
Alberta Horticulture Research Center
Brooks, Alberta T0J OJO
Phone: 362-3391

December 4, 1978

FOR IMMEDIATE RELEASE

BEDDING PLANT PRODUCTION SHORT COURSE

A small, but well known, bedding plant grower and retailer from New York State will share information on his production and marketing methods with Alberta growers at the Bedding Plant Production Short Course, scheduled to take place at Olds College on January 22 and 23.

His name is Jim Comes and he owns Comes Greenhouses. He is also the greenhouse technician at the State University in New York and keeps in touch with the greenhouse industry in the eastern states. He has made at least one tour of the bedding plant industry in Europe.

Mr. Comes will also talk about seeding bedding plants, seed germination, grading, transplanting, the growing media, growing conditions, containers, hardening-off the plants, holding and shipping them, making porch boxes, etc.

Eugene O'Donovan of Oglevee Floral Company of Pennsylvania will discuss cultural virus indexing of geraniums, while Bob Ermter of Westcan Horticultural Suppliers in Calgary will talk on the use of chemicals in bedding plant production and pest control. Charlie Hall of Jack Van Klavern Ltd. of St. Catherines, Ontario, a major supplier of Canada's greenhouse industry, will discuss pricing and marketing bedding plants. Dean Beamis of the Pan American Seed Company of Chicago will outline standard and new bedding plant varieties and seed production. Woody Cumbo of Olds College will talk on the use of bedding plants and the value of qualified employees.

The cost of the Bedding PLant Production Short Course is $30 for those who register before January 1, 1979. Anyone who registers after that date will have to pay $35.

Detailed information on the course and application forms can be obtained from the Department of Continuing Education, Olds College, Olds, Alberta, TOM 1PO.

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December 4, 1978

FOR IMMEDIATE RELEASE

CACTUS GRAFTING

Cactus grafting holds a real fascination for people who like plants that are "different." When you graft two different cacti together, you have a good chance of creating a plant that has never been seen before.

The top graft and the "V" or cleft graft are two easy grafts to do with cacti. The top graft is the best one to start with because it involves the least amount of cutting. Begin by deciding how tall you want the stock (the cactus on the bottom) to be on the new cactus. Then, using a sharp, clean knife, cut the top off the stock. In the middle is a round area called the growth column. To make a successful graft, the growth column in the stock must be as close as possible to the size of the growth column in the scion (the cactus that will be placed on top). Cut the roots and a small flat section off the scion. If the growth column is nearly the same size as the growth column in the stock, you can continue with the next step. If one is larger than the other, pare the larger one down until they match.

Then place the stock and scion together and hold them in place with string or a rubber band placed over the scion and under the flower pot. Or you can use toothpicks or needles from one of the cacti. (the cactus needles will be gradually absorbed as the cut heals). This type of graft is mainly used for attaching a ball-shaped cactus to the stock.

A "V" graft is recommended for joining a flat cactus to a round one. You start by making a V-shaped cut in the cactus that is going to be the stock. Then trim off the cactus that is going to be the scion so that it forms a V-shaped wedge that will fit into the V-shaped cut. After ensuring that the size of the growth columns are similar, put the two cacti together, and secure them by one of the above techniques.

The stab graft if another graft that is easy to do. Simply stab the stock with

- (cont'd) -

Cactus Grafting (cont'd)

a sharp knife and insert the scion into the wound. A flat cactus is usually used for the stock and a branching type for the scion. If you have a large stock, you can graft many different scions with different blooms and different blooming periods on to it.

Grafted cacti do not need any special care, except that you must be careful not to get any moisture on the graft when you water them. If the graft gets wet, the plant will start to rot. It usually takes from two to eight weeks for a graft to take. When the graft has taken, you will see new growth or the color around the point of union will return to normal. If string, rubber bands or toothpicks have been used to keep the grafted pieces in place, this is the time to remove them.

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December 4, 1978

FOR IMMEDIATE RELEASE

FOLACIN IMPORTANT IN DIET

The Nutrition Canada Survey shows that a large number of Canadians of all ages do not receive enough folacin in their diets.

Folacin is the group name applied to folic acid and related compounds which are found in food and converted in the tissues to co-enzymes. The co-enzymes play an important role in protein synthesis and cellular growth. They are also involved in the metabolism of some amino acids, and, in conjunction with vitamin B_{12}, regulate the formation of normal red blood cells in the bone marrow. A deficiency of folacin can cause a type of anemia.

Folacin is mainly stored in the liver and ascorbic acid helps to maintain an adequate level to meet metabolic requirements.

Suzanne Tenold, food and nutrition specialist at Alberta Agriculture's Airdrie regional office, says that Albertans should eat more folacin-rich food on a regular basis. She also says that women, especially pregnant women, and teenage girls need to pay close attention to their folacin intake.

Pregnant women are particularly prone to folacin deficiency because of their tendency not to eat folacin-rich foods during pregnancy and lactation. A deficiency at this time is also an indication that the body's store of folacin was not sufficient prior to pregnancy.

Following is a list of recommended food sources of folacin.

Excellent Food Sources	Good Food Sources
liver, chicken & beef	legumes: peanuts, pinto beans, lima beans, etc.
yeast	whole grain cereals & flour
wheat germ, toasted wheat germ	green vegetables
blackeye beans	eggs
spinach, romaine lettuce, parsley, flowertop of broccoli, collard greens, beets	kidney, liverwurst

"Although there is some loss of folacin during cooking, these losses need not be a concern if good cooking practices are followed," Ms. Tenold says.

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INTERNATIONAL MARKETING APPOINTMENTS

The following appointments in the International Marketing group have been announced by Assistant Deputy Minister, H.B. (Ben) McEwen.

Brian A. Hodge has been promoted to the position of acting international trade director with the responsibility of increasing Alberta agricultural and food exports to Europe.

Mr. Hodge's five years of work with Alberta Agriculture has been divided between commodity officer in the marketing services division and senior marketing officer in International Marketing. He had previously gained agricultural industry experience with National Grain and Manitoba Pool Elevators.

Don Macyk replaces Mr. Hodge as senior marketing officer, field crops/products. Mr. Macyk joined Alberta Agriculture in 1970 as summer assistant district agriculturist. From 1971 - 1975 he worked for an agricultural communications firm in Edmonton. He rejoined Alberta Agriculture in June of 1975 as special crops analyst in the market analysis branch.

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FOR IMMEDIATE RELEASE

MARKET ANALYSIS BRANCH HEAD APPOINTED

E. David Walker has been appointed head of Alberta Agriculture's market analysis branch. His appointment was announced by M.A. Cameron, director of the economic services division.

Mr. Walker will co-ordinate and supervise the activities of the market analysis branch, which will include providing market and outlook information, interpreting government policy and analyzing agricultural market developments. The branch's main clients are farmers, agribusiness and government.

Raised on a farm in England, Mr. Walker obtained a B.Sc. (agriculture) from the Sutton Bonningham School of Agriculture in 1966. He completed his M.Sc. (agricultural economics) at the University of Guelph two years later.

Between 1969 and 1976 Mr. Walker was employed as an economist with Alberta Agriculture's market analysis branch. During that time he was responsible for grain market analysis. In May of 1976 he joined the Anti-Inflation Board in Ottawa, and retained that position until his present appointment.

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AGRI-NEWS

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FOR IMMEDIATE RELEASE

THIS WEEK

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FOR IMMEDIATE RELEASE

THREE FIRMS RECEIVE ASSISTANCE UNDER FEDERAL–PROVINCIAL AGREEMENT

Three more firms will receive assistance under the Canada/Alberta Nutritive Processing Assistance Agreement. They are Astro Mobile Feed Mill (a company to be incorporated) of Wainwright, United Oilseed Products Ltd., of Lloydminster and V & B Feeds Ltd. of Vauxhall.

Astro Mobile Feed Mill

This company will receive $11,934 to purchase a truck mounted feed milling system which has the capability to roll, grind, pulverise, shred or mix/blend various feed components into supplemented and complete livestock feed. The estimated capital to be employed is $41,150. Two full and part-time jobs are expected to be created.

V & B Feeds Ltd.

This feedmill will receive $4,172 to add warehouse space, a repair shop, a new office and meeting area and a display area for promoting sales of farm-related products. The estimated capital to be employed is $45,885, and one full-time job is expected to be created.

United Oilseed Products Ltd.

This plant will receive $325,267 to purchase a seed pre-heater, to expand its storage capacity for cleaned seed and meal, to construct an on-site drainage area and to add water treatment facilities. The estimated capital to be employed is $2,155,814, and seven full-time jobs are expected to be created.

Assistance to the three firms was announced jointly by Marcel Lessard, federal minister of the Department of Regional Economic Expansion (DREE) and Marvin Moore, Minister of Agriculture. The Nutritive Processing Assistance Agreement is shared equally by DREE and Alberta Agriculture.

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FOR IMMEDIATE RELEASE

LARGE CALVES, SMALL COW PELVIC AREA MAIN CAUSES OF CALVING TROUBLES

It comes as no surprise to cattlemen that the combination of a small cow sired to a large bull will likely give the cow problems at calving time.

Research at South Dakota State University (SDSU) has been zeroing in on exactly what causes those difficulties. Hopefully, it will turn up information that cow-calf producers can use to select the kind of yearling heifer that will give them a good sized calf at weaning time with a reduced amount of calving difficulty.

Over a four-year period, the research shows that calf birth weight and cow pelvic area are the two most consistently important factors influencing calving difficulty in two-year-olds.

Over 550 Hereford, Hereford-Angus cross, Simmental-Angus cross, and Simmental-Hereford cross heifers were involved. A total of 52 different factors were investigated to determine their influence on calving difficulty.

The factors studied during the period from the weaned heifer calf through the calving of the two-year-old cow included periodic heifer weights, condition scores and rate of gain. Three internal and seven external pelvic areas were also measured. So were three pelvic angle measurements and two slope of rump estimates obtained as yearlings and as two-year-olds. Other factors taken into account include gestation length and calf birth weight, sex and birth date. Cows were scored on difficulty of delivery.

Internal pelvic measurements were taken to estimate the size of the cow's birth canal. External pelvic measurements were obtained to determine if they could be used to predict internal pelvic size. Slope of rump and pelvic angles were calculated to study their effects on pelvic size and calving difficulty.

Results from computer analyses showed some difference between breeds of heifers and sires of calves. However, when the data were analyzed within breeds, the calf birth

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Large Calves, Small Cow Pelvic Area Main Causes of Calving Troubles (cont'd)

weight and the pelvic size of the cow ranked highest in causing calving difficulty.

"This is only logical," explains Gene Deutscher, SDSU beef cattle scientist. "A large calf cannot be forced through a small passage without difficulty."

He said this means we have three choices for reducing calving difficulty:

- Select sires that produce small calves at birth.
- Select heifers that have a large enough pelvic size to have an average size calf.
- Use a combination of both sire and heifer selection.

"The third method is probably the best," says Deutscher.

Results of the SDSU research also show a close association between a heifer's yearling and two-year-old pelvic size. This means heifers could be measured before the breeding season and their potential calving difficulty determined.

Small pelvic size heifers could be culled from the herd or bred to bulls producing smaller calves at birth. Pelvic area must be of sufficient size in relation to calf size to allow for problem-free calving.

Other findings suggest that external pelvic measurements are not accurate in predicting internal pelvic size. This means that internal measurements need to be taken.

Also, slope of rump and pelvic angles have very small correlations with pelvic areas and calving diffuculty, indicating little influence on them.

The larger, heavier cows at calving had larger calves at birth but also had larger pelvic sizes which permitted less calving difficulty. Cows which gained weight during the winter gestation period tended to have less calving difficulty than cows which just maintained their weight.

Therefore, adequate nutrition is a necessity for young cows during the gestation period to allow for normal growth and development of the pelvic structure. It also increases the probability of rebreeding.

(Reprinted from the August 1978 issue of the "United Beef Letter," with permission from the United Grain Growers Farm Information Service, Winnipeg, Manitoba)

December 11, 1978

FOR IMMEDIATE RELEASE

COMPUTER HELPS TO EVALUATE CATTLE CROSSBREEDING PROGRAMS

A research project has been initiated at the federal research station in Lethbridge which uses a computer model and available research data to evaluate cattle crossbreeding schemes before they are tried in an actual breeding program.

One such crossbreeding program that is being evaluated involves using Jersey sires on Hereford and Angus straightbred heifers. Previous research in both Canada and the United States has shown that this practice reduces calving difficulties, allows first-calf heifers to recover quickly after calving, ensures that the heifers remain synchronized with the mature cows in the subsequent breeding season and, most important of all, increases the number of live calves weaned.

The disadvantages of such a breeding program include slightly smaller calves at weaning time and feedlots operators' apparent dislike of feeder cattle from Jersey parentage. The scientists at the Lethbridge research station are confident, however, that these difficulties can be overcome by feeding and rail grading the male calves and by keeping the heifers for breeding.

"We know," they say, "that Jersey crossbred heifers reach puberty earlier than other domestic breeds, that they are extremely fertile, that they encounter little difficulty in calving as first-calf heifers and that they produce a sufficient volume of high quality milk to wean a heavy calf." The scientists also believe that it may be possible to breed Jersey crossbred heifers in the same calendar year in which they are born. However, the physiological and nutritional difficulties involved in such a program and the economics of splitting the calving season between fall and spring require further study.

Once the computer simulation of a breeding program has been completed, the various stages can be evaluated under practical farm conditions to pinpoint any problems that may not have been evident in the computer analysis.

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FOR IMMEDIATE RELEASE

RAPESEED AFTER RAPESEED???

Growing rapeseed after rapeseed on the same land is a risky business, according to Phil Thomas, Alberta Agriculture's supervisor of oilseed crops.

Even though recent newspaper articles have reported farmers successfully growing rapeseed on rape stubble, he points out that this practice for both seeded and volunteer crops could lead to a lot of disappointment. He says "For every successful rapeseed crop grown on rape stubble there have been a large number of unsuccessful ones."

One of the things against growing rapeseed on rape stubble is that it provides an ideal environment for disease and insect buildups. There are several rapeseed diseases which do relatively little damage in the first crop, but under the right conditions can cause severe damage and yield losses in a second crop. This is because of the buildup of potential infection.

Mr. Thomas explains that a rotation using cereal crops between rapeseed crops facilitates a natural breakdown of the disease organisms and their cycles. It also breaks the cycle of certain rapeseed insects. "The rotation recommended by all research scientists is one in which rapeseed is grown only once in three or four years on the same land," Mr. Thomas says.

Rapeseed grown on rape stubble also allows a buildup of perennial and annual weeds which cannot be controlled with herbicides in a rape crop as is the case with cereal crops. A buildup of weeds like Canada thistle, cleavers, stinkweed and wild mustard can lead to yield losses and the possibility of lower grades.

Since rapeseed trash and stubble put little organic matter back into the soil, continuous rapeseed cropping will eventually lead to a deterioration of the soil and a loss of its structure and tilth, especially on grey-wooded soils. Such a situation increases the risk of soil erosion by the wind.

Under certain conditions the toxin in rapeseed trash and stubble severely reduces

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Rapeseed After Rapeseed (cont'd)

the growth and yield of the following crop. It affects growth and yields of rapeseed more seriously than the growth and yield of susceptible barley and wheat varieties. However, if the rapeseed swath is not rained on and no leaching of the toxin out of the straw occurs and the trash is evenly spread over the field, there is usually no adverse effect on the subsequent crop.

Mr. Thomas strongly advises farmers to take a very serious look at their rapeseed crop rotations and to avoid planting rapeseed on rape stubble. "While the successful growing of rapeseed on rape stubble reported by the media may sound appealing, this practice could lead to heavy financial losses" he stresses.

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FOR IMMEDIATE RELEASE

BRUCELLOSIS IN SHEEP

by Dr. Casey Shipper
Sheep Extension Veterinarian, Alberta Agriculture

Alberta sheep producers often ask whether brucellosis is of concern to the sheep industry.

Of the three forms of brucellosis to which sheep are susceptible only one is likely to be of potential concern to sheep producers in this province. It is commonly called ram epididymis and is caused by ***Brucella (Br.) ovis***.

Br. ovis was first isolated from sheep by Alberta Agriculture's veterinary laboratory in Edmonton in 1973. At that time it was found in two southern Alberta flocks where some of the ewes had aborted. A ram was discovered to be the carrier of the infection.

Even though subsequent laboratory work has given the impression that this disease is not economically significant in Alberta at this time, sheepmen would be wise to be on the look out for it.

In contrast to the other two forms of brucellosis that can be found in sheep, ram epididymis is quite common in the United States, Australia and a number of other countries. In the mid-1950's it was estimated that 20 to 25 per cent of rams in California were infected with the disease.

Although abortions have been reported in ewes during late pregnancy, they are not frequent because ewes are very resistant to ***Br. ovis*** infections. Open ewes bred by an infected ram merely act as a temporary reservoir from which other rams become contaminated when they service such ewes. The ewes themselves become resistant when bred by an infected ram, and it appears that only pregnant ewes are somewhat susceptible to the disease. Such animals usually contract it through the ingestion of contaminated feed.

Unlike ewes which are only affected for a short time, rams may excrete ***Br. ovis*** in their semen for years. Hence, it is easy to understand that one infected ram can wreak havoc

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Brucellosis in Sheep (cont'd)

with the reproductive performance of a flock. He will fail to fertilize the ewes because of his poor quality semen, and he poses a real hazard to healthy rams in the flock.

The *Br. ovis* lives and multiples in the testicles of an infected ram, which can become sterile or able to successfully service only a limited number of ewes. Ram to ram infection commonly occurs when healthy rams service ewes that have been bred by an infected ram or through homosexual activities (via the rectum). Infection is also possible through the ingestion of contaminated feed and water, but less common.

In the early stages infected rams may show some visible fluid swelling of the scrotum and testicles. As the infection becomes well established the testicles and epididymis may become enlarged, hard, lumpy and may adhere to the scrotum. These abnormalities may be readily detected by experienced sheepmen or veterinarians.

Rams suspected of being affected should be examined by a veterinarian to confirm the diagnosis. It is recommended that all rams showing evidence of epididymitis be removed from the breeding flock.

There are also blood tests designed to detect carrier rams in a flock of healthy rams. However, these are not 100 per cent accurate. Repeated testing and constant culling of suspicious animals is required to eliminate the infection from a flock.

Replacement rams should be reared away from adult rams or purchased from disease free flocks only.

Sheep imported from the U.S. must be certified as free as scrapie, scabies, bluetongue and *Br. ovis* before they are allowed into Canada.

December 11, 1978

FOR IMMEDIATE RELEASE

LEAFCUTTER BEE COCOON TESTING PROGRAM ANNOUNCED

The head of Alberta Agriculture's field crops branch, Dave Jantzie, has announced the commencement of the Leafcutter Bee Cocoon Testing Program at the Alberta Horticultural Research Center in Brooks.

The purpose of the program is:

- To provide statistically accurate estimates of the number of cocoons, incomplete and parasitized cells as well as the sex ration (number of females) of alfalfa leafcutter bees per unit weight from batches of cocoons. These estimates should provide unbiased guidelines that will help those who sell leafcutter bees to obtain fair prices and those who buy them to obtain fair values.
- To provide a means for leafcutter beekeepers to improve their beekeeping practices.
- To provide a means of monitoring the density and diversity of present parasites and of recording and substantiating any new ones.
- To provide information when problems arise with individual leafcutter bee samples (i.e. excessive mold, dehydration of lavae, etc.)
- To provide protection against potentially harmful leafcutter bee parasites and pathogens.

The new program, which received initial financial support from Alberta Agriculture, is being sponsored by leafcutter bee producers in Alberta, Saskatchewan and Manitoba. It will be administered by the Alberta Leafcutter Association under the auspices of Alberta Agriculture's field crops branch.

Although the initial goal of the new testing center is to protect the leafcutter bee industry, its ultimate aim is to increase the production of alfalfa seed in Canada.

More information on the services being offered at the testing center can be obtained from:

Leafcutter Bee Cocoon Testing Program
c/o Alberta Horticultural Research Center,
Bag Service 200
Brooks, Alberta TOJ 0J0

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FOR IMMEDIATE RELEASE

IMPROVING DUGOUT WATER QUALITY

If the quality of your dugout water has started to deteriorate because you did not control the algae and aquatic weeds last spring and summer, you can probably improve it through aeration or chlorination.

However, Andrew Livingstone, Alberta Agriculture's regional engineering technologist at Barrhead, points out that controlling algae and aquatic weeds is easier than aerating or chlorinating a dugout. These weeds are not very troublesome while they are actively growing, but when they start to decompose they reduce the amount of dissolved oxygen in the water, which then develops a bad taste, odor and color.

"The water quality starts to deteriorate," Mr. Livingstone explains, "when ice forms on its surface." Undesirable gases, particularly hydrogen sulphide, which is very corrosive, are produced. The odor of hydrogen sulphide is like rotten eggs and the gas turns the water black. "If one of a number of possible herbicides had been applied last spring and summer, this situation would not have developed," Mr. Livingstone says.

He also says that an air compressor, a large pump or a wind-powered propeller assembly can be used to aerate a dugout. If you use an air compressor, you must install a perforated line in the dugout and pump five to 10 cubic feet of air per minute into the water for several hours every day during the winter.

If you use a large pump, you must use chlorine. You must also cut a hole in the ice on one side of the dugout to accomodate the suction line of the pump and a pump discharge hole on the opposite side of the dugout. Then add 70 per cent powdered chlorine to the water at a rate of eight pounds per 1,000 gallons of water and pump until the water and the chlorine are well mixed. This operation does not usually have to be performed more than once or twice during the winter.

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Improving Dugout Water Quality (cont'd)

Under average conditions a wind-powered propeller assembly, such as a "Pondmaster," will maintain an ice-free area on the dugout surface, which allows the water to absorb oxygen. However, this ice-free area will freeze over during a long period of no wind or during an extremely cold spell.

You can obtain more detailed information on aerating and chlorinating your dugout from your regional engineering technologist who can be contacted through your district extension office.

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FOR IMMEDIATE RELEASE

ENERGY IN THE FOOD SYSTEM

The 88 4-H delegates from across Canada and the United States who attended the National 4-H Conference on "Energy in the Food System" in Toronto recently were quick to decide that there are many avenues of energy conservation, and that some industries are very energy conscious, while others have not realized the need for energy conservation or of thinking of energy as a factor in industrial development.

Armed with information on energy use in various industries, much of which had been gained from visits to a number of large Eastern manufacturing plants that are both food producers and heavy users of energy, the 4-H delegates discussed industrial development across Canada as it relates to population and energy supplies. While touring and researching these plants, they met the company executives and talked about the ways their plants used energy, the effect of energy availability on plant site selection, energy alternatives and industry's plans for energy conservation.

The next day the delegates took part in a simulation exercise where they were the policy makers for industry. In these roles they realized the problems of regional disparity and the difficulties involved in making political decisions that will be equitable for the entire nation. They also became very aware of how energy and population affect the price of products across Canada.

The American delegates shared information on energy-related problems in the United States, thereby enabling their Canadian counterparts to better understand the complexities of industry and energy on the North American continent as a whole.

Living in a large metropolitan area was a subtle subtheme of the conference. The 4-H'ers, who were mainly from a rural background, were able to compare their lifestyles with those of people who live in Metro Toronto in relation to transportation, housing and recreation. They became aware, for example, that things that are part of daily life on the farm

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Energy in the Food System (cont'd)

are not always possible in a large city.

Doug Norman, Alberta Agriculture's regional 4-H specialist from Stettler who accompanied Alberta's eight delegates to Toronto, says, "A conference like the one we just attended is a once in a lifetime experience for anyone. How often does the ordinary Canadian citizen have a chance to discuss, on an equal basis, the problems associated with developing our nation and their possible solutions with people from across the continent?"

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FOR IMMEDIATE RELEASE

MANAGING AGRICULTURAL TECHNOLOGY CONFERENCE

A very high calibre conference on managing agricultural technology is scheduled to take place at the Traveller's Motor Hotel in Peace River on February 12, 13 and 14, 1979.

The speakers are all tops in their fields. Gregory Bowden, for example, works with a Vancouver-based law firm and has lectured extensively on taxation law and estate planning. One of the topics he will cover at the Peace River conference is "Keeping the Farm in the Family."

Peter Perkins, a journalist for "Grainnews," and a marketeer, will discuss "Grain and Oilseed Marketing."

Gay Holiday is from Roundup, Montana, U.S.A. She is state president of Women Involved in Farm Economics and a member of the National Steering Committee, the Governor's Committee of Economics Advisory Council and the Governor's Ad Hoc Committee for Agriculture. Her topic will be "The Role of the Farm Wife."

Everyone at the conference will have an opportunity to attend eight of the 11 sessions being offered, and speakers will be available for bear pit sessions each evening. Participants will be free to question the speakers or anyone else on any aspect of the topics that have been covered.

Since conference participants will be limited to the first 150 who apply, anyone who would like to attend would be wise to preregister. The fee for the conference is $25 for a single applicant and $35 for a couple. It includes copies of the lecture material and coffee. All cheques should be made payable to the Provincial Treasurer (they are not refundable unless the conference is fully booked).

A single room at the Traveller's Motor Hotel costs $22 to $25 a night, and

- (cont'd) -

Managing Agricultural Technology Conference (cont'd)

a double room costs $26 to $29 a night. Single participants may be required to share.

The cost of the conference will be eligible for income tax deduction.

Application forms and registration fees must be received in full by January 2, 1979. They should be sent to:

Priscilla Mewha, Regional Home Management Specialist,
Alberta Agriculture,
Provincial Building,
Grande Prairie, Alberta
T8V 2L8 (Telephone: 539-2283)

All district home economists and district agriculturists have information on the conference and on the topics that will be covered.

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December 11, 1978

FOR IMMEDIATE RELEASE

FARM BUSINESS MANAGEMENT SEMINAR AT BANFF

"Managing Agricultural Technology for Profit" is the theme of a seminar that will be sponsored at Banff from March 4 to 7 by Alberta Agriculture's farm business management branch.

Twenty-six outstanding speakers from across Canada and from the United States will discuss topics which are of current interest and concern to Alberta's top farm managers.

Dr. Don Paarlberg, presently with the University of Purdue, Indiana, will be the lead speaker. Prior to his present position, he was senior advisor to the former secretary of agriculture in the United States, Earl Butz, and is a leading authority on North American agriculture.

The following is a list of the topics that will be covered at the seminar:

- New Techniques in Beef Production
  - Feedlot Management
  - Reconstituting Feed Grain
  - Economics
  - Marketing
- innovations in Crop Management
  - Fertilizers
  - Herbicides
  - Marketing
- Together We Stand - The Farm Family
  - The Farm Wife - Asset, Liability, or Non-Entity
  - Women on the Farm
  - The Child on the Farm
- Taxation
- Farm Law
- Management of Labour - Time and Communication

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Farm Business Management Seminar at Banff (cont'd)

- Management of Stress
- Mini-Computers
- New Crops for Alberta
- Custom Farming
- Drainage Systems
- Changing Consumption Patterns
- Off-Farm Investment
- Financial Control
- Electronics on the Farm
- Harvesting and Drying

Application forms for the seminar will be available in December from district agriculturists' offices and the Farm Business Management Branch, Box 2000, Olds, TOM 1PO. (Telephone 226-8421). Applicants who have been accepted will be notified in January, 1979. The registration fee will be $100 for a farm couple and $75 for a single participant.

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AGRI-NEWS

December 18, 1978

FOR IMMEDIATE RELEASE

THIS WEEK

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Phone (403) 427-2127

December 18, 1978

FOR IMMEDIATE RELEASE

TWO ALBERTA COMPANIES RECEIVE FEDERAL-PROVINCIAL ASSISTANCE

South Edmonton Feed Mill Ltd. and Alberta Dehydrating Company Ltd. of Vauxhall will both receive assistance under the Canada-Alberta Nutritive Processing Assistance Agreement.

South Edmonton Feed Mill Ltd. will receive $11,514 to expand its fertilizer business. The expansion will include the construction of additional product storage and an office and the acquisition of bulk blending equipment to facilitate servicing a full line of dry fertilizer. The estimated capital cost to be employed is $88,570, and one new job is expected to be created.

Alberta Dehydrating Company Ltd. will receive $43,005 for the purchase of field equipment, the purchase and installation of a higher capacity drying drum and the construction of two additional storage bins.

The total capital to be employed is $344,355, and two seasonal jobs will be created.

The announcement of the federal-provincial assistance to the Alberta plants was made by Marcel Lessard, federal minister of the Department of Regional Economic Expansion (DREE) and Marvin Moore, Alberta's minister of agriculture.

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December 18, 1978

FOR IMMEDIATE RELEASE

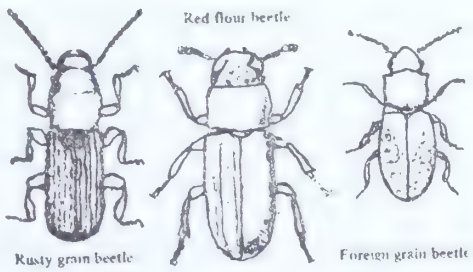
STORED GRAIN INSECT SITUATION AND CONTROL

Alberta farmers are again facing serious stored grain insect problems.

Michael Dolinski, entomologist and pest control specialist with Alberta Agriculture, urges farmers to check their cereals and rapeseed now for heating and insects and to continue checking them at two-week intervals throughout the winter.

According to the November issue of "Grainews," John Van Loon, entomologist with the Canadian Grain Commission, says the stored grain insect problem in Western Canada is not as bad as it was in 1976, but it is definitely turning into a worse problem than it was last year. The main grains being affected are wheat, barley and rapeseed, which has a lot of screenings.

Mr. Van Loon reports that the most common insects being found in cereals and rapeseed are the rusty grain beetle and the red flour beetle, both of which eat grain, and the foreign grain beetle which eats the fungus in tough and damp grain. He recommends pushing a steel rod into the grain in each bin, leaving it there for 10 minutes and then pulling it out. If it feels warm to the touch, there is probably a heating problem and a bug problem. Most of the bugs will have migrated to the centre of the grain by this time of year.



According to Mr. Van Loon, once the temperature goes below 5° C., most insecticides are useless for controlling stored grain insects. "Your best bet," he says, "is to cool the grain to a temperature that is below freezing." This can be done by augering the grain out of the bin and back into it again on a cool day. If the bin has aeration equipment, the grain can be cooled off with that.

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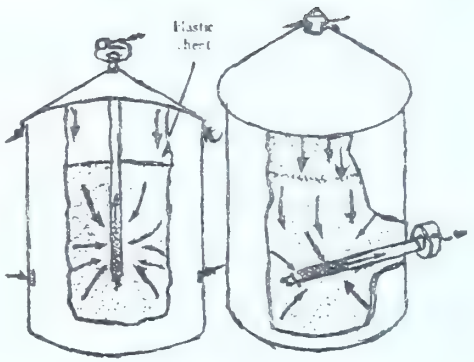
Stored Grain Insect Situation and Control (cont'd)



A Portable Aerator

There are portable bin aerators that can be easity installed in bins that hold up to 3,000 bushels. Several aerators would be required in larger bins to circulate a sufficient amount of air to cool the bin.

In addition to blaming the tough grain that was binned in 1977 (there are generally insect problems the year after a wet harvest because some of the grain is still in the bins), Mr. Van Loon blames steel bins for the present stored grain insect problem. He says, "The outside of steel bins will warm up and the centre stays cool. This starts moisture movement. Steel bins don't 'breathe' like wooden bins, and so the moisture can't escape. Moist pockets develop and these tend to heat. The warmth and moisture make an ideal medium for insect development."

One of Manitoba's agricultural engineers, Allan Roberts, warns that the centre of a bin of grain should not get too cool. If the grain temperature at the centre falls to -15° C. and remains there while the grain along the outside walls warms up in the spring, moisture will move from the walls to the coldest grain at the bottom of the centre of the bin. This condition could result in grain spoilage.

Portable aerators can be obtained from Westseel Rosco and from one of its major distributors, United Farmers of Alberta Co-op. Since there are probably several other distributors, it would be a good idea to check with local machinery dealers and elevator agents. Portable aerator prices range from $150 up, depending upon size and the number of pipes needed.

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December 18, 1978

FOR IMMEDIATE RELEASE

ADDITION TO WATER WELL RECOVERY PROGRAM

The Water Well Recovery Program, announced early last summer to help farmers who had encountered water well problems that had been caused by seismic activity, has been extended to cover problems caused by oil or gas drilling in the area.

The first step a farmer should take if he experiences a decrease in his water supply which he feels is related to seismic activity or oil or gas well drilling is to contact the seismic or drilling company involved. If he is unable to locate the company or is unable to reach a settlement with it, he should then take the following course. If the problem is believed to have arisen because of seismic activity, he should contact the geophysical branch of Alberta Energy and Natural Resources which will examine the situation, conduct an on-site inspection and determine the amount of compensation.

If the problem is believed to have arisen because of drilling activity, the farmer should contact the Energy Resources Conservation Board in Calgary which will carry out an investigation.

In cases where the farmer, the company and the geophysical branch of Alberta Energy and Natural Resources or the Energy Resources Conservation Board cannot agree on the nature of the problem or its cause, the matter will be referred to a special committee, which will include representatives from the complainant's local agricultural development committee. After reviewing the case, the special committee will make recommendations to the minister of agriculture regarding compensation.

The Water Well Recovery Program is retroactive to January 1, 1976.

Application forms are available from district agriculturists and from the Engineering and Rural Services Division, Agriculture Building, 9718 - 107 Street, Edmonton, T5K 2C8.

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December 18, 1978

FOR IMMEDIATE RELEASE

ENTEROTOXEMIA IN LAMBS

by C. Schipper
Alberta Agriculture's Veterinary Services Division

Enterotoxemia (pulpy kidney disease) is one of the most common causes of death among unvaccinated lambs in Alberta. Single lambs nursing heavily milking ewes on good quality pasture, and rapidly growing feedlot lambs on high concentrate rations, are the most susceptible.

The disease is caused by the germ Clostridium perfringes type D. This organism is a normal inhabitant of a sheep's intestine and it is only under adverse conditions that it multiplies rapidly to produce a deadly poision. When absorbed from the intestine by the bloodstream, the poison will cause illness and death. Convulsions, frothing at the mouth, signs of abdominal pain, and sudden deaths are most commonly seen.

Veterinarians may readily diagnose the disease on the basis of history, post-mortem findings and laboratory tests.

Contributing causes of the disease are poor feeding management, inadequate intestinal parasite control and lack of a good clostridial vaccination program. Since treatment is essentially ineffective, emphasis should be placed on prevention. Recommendations are as follows:

Vaccinate pregnant ewes annually about six weeks before they lamb with a multivalent clostridial bacterin or toxoid. An immune ewe will pass immunity on to her lambs via her milk. Nursing lambs are thus expected to be passively immune for about six weeks. All lambs should be vaccinated at six weeks of age. Early weaned lambs should be given a booster three weeks later when placed on a high energy finishing ration. Late weaned lambs can be given a booster in the fall prior to entry into a feedlot. Fast growing orphan lambs should be vaccinated at 10 days of age. Since many lambs develop a hard lump under the skin at the site of the

- (cont'd) -

Enterotoxemia in Lambs (cont'd)

vaccine injection, the neck is the preferred injection site from the point of view of minimizing damage to the dressed carcass.

Lambs should be introduced to concentrated feeds gradually and self-feeders should always be kept full. The lambs should have adequate feeder space to reduce competition, and a good parasite control program should be maintained.

Vaccination and worm control offer the best prospects for preventing enterotoxemia in lambs nursing ewes on good quality pasture.

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FOR IMMEDIATE RELEASE

SHEEP SHIPMENT TO MEXICO

Mexico has imported a shipment of purebred sheep from Alberta and Saskatchewan for the second year in succession.

The shipment was arranged through the Alberta Canada All Breeds Association and consists of 57 rams and 294 ewes from a cross-section of Western Canada's top Suffolk and Hampshire flocks. Alberta breeders supplied 294 of the 351 animals exported to Mexico.

This year's shipment contains approximately 100 head more than the 1977 shipment.

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December 18, 1978

FOR IMMEDIATE RELEASE

MICROWAVE OVEN SAFETY

Although the exact biological effects of microwave radiation from a microwave oven are still not known, there are indications that an overdose can cause such things a cataracts of the eyes and damage to the sex glands, especially in males.

For this reason microwave oven users should observe the following safety precautions:

- Never stand within arms length of an oven that is operating.
- Never open the door of an oven while it is on.
- Never look through the door of an oven while it is cooking.
- Never insert an object through the grill door.
- Never tamper with the safety locks on the oven.
- Never leave an oven on when it is not cooking.
- Never use metal cookware.
- Never use a damaged oven. If it or the door gets damaged in anyway, have the oven checked immediately.
- Never go near an operating microwave oven if you use a cardiac pacemaker.
- Never use scouring pads, steel wool or any other abrasive to clean an microwave oven. Use water and a mild detergent to clean the door, seals and oven cavity. Clean them frequently.
- Have your oven checked about once a year by a qualified serviceman to make sure there are no signs of wear or damage.

Grant Churchill, safety co-ordinator with Alberta Agriculture, explains that microwave energy is a form of high frequency radio waves, and that the heating effect produced in food appears to result from the conversion of electromagnetic energy into heat energy within water molecules. Molecules in an electrical field tend to line up and to vibrate, but they vibrate

- (cont'd) -

Microwave Oven Safety (cont'd)

with greater speed than normal if the field vibrates as is the case with microwave emissions. Microwaves change polarity about five billion times per second, and the molecules of water in food or tissue vibrate at this frequency. It is this rapid vibration, which causes friction between the molecules, that is thought to change microwave energy into heat energy.

Since microwave energy is not absorbed by items that do not contain water molecules, the oven and the oven dishes do not get hot during the cooking process.

Microwave ovens cannot be turned up or down to generate more or less waves. They can only be turned on for a longer or shorter period or turned off.

From the safety point of view, the door is the most important feature of a microwave oven because it provides a shield between the microwaves and the operator. The door has a double interlock system so that power to the generator is turned off when the door is open. However, if the door or the glass or the screen on the door are damaged, microwave energy may leak out.

Although the interaction between microwaves and human tissues is very complex, the most significant effects appear to result from heat. According to Mr. Churchill, the body seems to respond identically to the heat that originates from microwaves and the heat that originates from a fever. In both cases the heat acts as a stress factor which affects normal responses. Effects which can occur from this stress are cataracts, temporary sterility in males, changes in the blood, headaches, a slowing down of the heartbeat and disturbances in the nervous system. A leakage from a microwave oven can cause a pacemaker to vary its impulse rate or to stop.

The standard level of safe exposure to microwaves used to be 10 milliwatts per square centimetre, but it has now been lowered to one milliwatt per square centimetre. Of the 77 commercial microwave ovens tested by Alberta Labor's radiation protection branch, 45 were found to meet the current standard of one milliwatt, 26 met the old standard of 10 milliwatts and six were leaking in excess of 10 milliwatts per square centimetre.

Microwave Oven Safety (cont'd)

Microwaves that are escaping from an oven can be detected in a number of ways. The simplest divice for the home owner is a neon bulb. It will glow if the amount of radiation leaking from the oven is above 10 milliwatts per square centimetre. These bulbs can be obtained from Westinghouse Canada Ltd. for about $5.

If you purchased your microwave oven before 1972 when the safe use exposure standard was lowered to one milliwatt from 10 milliwatts per square centimetre, you do not have to worry, according to Mr. Churchill. He says the new standard was brought in so that microwave oven manufacturers would have to build in a larger safety factor to give users added protection.

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December 18, 1978

FOR IMMEDIATE RELEASE

TWO CANDY MAKERS IN ALBERTA

Fern's Chocolates and Candies in Cardston and Pavey's Candy Ltd. of Edmonton have been making delicious products for over 50 years.

Dora Graham, Alberta Agriculture's food marketing specialist in Calgary, says "Quality is still the hall mark of the products that carry the names of these companies. Only the finest ingredients are used: fresh Alberta cream, sweet Alberta butter and pure Alberta sugar." By the end of this year the two companies will have used approximately 155,000 pounds of Alberta sugar between them.

According to Ms. Graham, Fern's candy-making has expanded from a small kitchen operation to a large modern plant which employs over 30 people. Its most popular line is the 14-ounce assortment of dipped chocolates. "Almond bark," flavored with vanilla or butterscotch, ranks a close second in popularity. Then there is Fern's "Peanut Brittle" which has a rich butter flavor in the crystal brittle that coats the fresh roasted peanuts. Fern's also sells rich "Cream Handrolls," "Dinner Mints" and a "make it yourself" kit for making vanilla or butterscotch "Almond Bark." It is sold under the brand name of "Uncle Doug's" and is ideal for a creative-type person.

Ms. Graham says "Pavey's Candy Ltd. still uses their original recipes in all their hard candy, the most popular of which is the "Humbug." Most of their candy is still made by hand, which makes stringent control possible. The plant is only semi-automated.

Pavey's humbugs are flavored with burnt sugar and then pulled to add air and to lighten their color. Of the 25 lines of candy produced by Pavey's, the best seller is a box of "Orange and Lemon Slices and Mixed Jellies." However, the "Toasted Marshmallows" are also very popular, especially during the summer. Then there are the "Chicken Bones" which contain peanut butter centres covered with toasted coconut. At Christmas time Pavey's make candy canes that are about two feet high.

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Two Candy Makers in Alberta (cont'd)

Both Fern's and Pavey's chocolates and candies are sold throughout Alberta in department stores and drug stores. Fern's chocolates feature an Alberta Rose to show that they are an Alberta product.

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December 18, 1978

FOR IMMEDIATE RELEASE

SHOCKING BEEF INTO TENDERNESS

Passing 700 volts through a beef carcass within 15 minutes of slaughter tenderizes the meat, according to a report received by Alberta Agriculture from the Agricultural Research Council in Britain.

The report, which describes work being done at the Meat Research Institute in Norwich, says that two minutes of the current eliminates the long hanging period needed to reduce the toughness in beef. The current apparently causes an artificial flexing of the muscles in the beef which accelerates the bio-chemical and tenderizing processes.

Until now these bio-chemical changes have had to be allowed to take place over 16 to 20 hours and before the meat was refrigerated or frozen. Meat put into cold storage too quickly is likely to be tough. However, a carcass which has had a high voltage current passed through it can be refrigerated within two or three hours of slaughter.

The next step, says the British report, is to develop equipment that can be safely used in an abattoir.

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December 18, 1978

FOR IMMEDIATE RELEASE

INTERNATIONAL YOUTH EXCHANGE HELPS SELL DAIRY ANIMALS

Hirome Ogawa, a progressive dairyman in Hokkaido, Japan, has just bought 13 purebred Holstein heifers from Alberta for delivery in April, 1979.

Mr. Ogawa was the host farmer of Rita Shank of Athabasca who spent a year on his farm under the Alberta-Hokkaido Dairy Exchange Program. This program provides for 10 young Alberta dairy farmers a year to spend 12 months on a Japanese dairy farm and for 10 young Japanese dairy farmers to spend 12 months on an Alberta dairy farm.

It was while Ms. Shank was on Mr. Ogawa's farm that he became aware of the high quality of Alberta's dairy cattle. In September of this year he came to Canada to buy replacement stock for his dairy herd. After checking dairy cattle in both Ontario and Alberta, he selected 13 Holstein heifers from several of Alberta's top herds. He is reported to be so pleased with the quality of these animals that he plans to return to Alberta within a year to purchase more young stock to improve his herd.

While this latest sale represents only a small portion of the many dairy animals that have been purchased by Japan, it is the first to result directly from the Alberta-Hokkaido Dairy Exchange Program. While the program's objectives are to enable the exchangees to learn about each other's technology and culture, the purchase of the above animals indicates the economic opportunities that such a program presents.

Young Albertans with dairy farm experience can get information on the Alberta-Hokkaido Exchange Program from their district agriculturists or regional 4-H specialists.

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December 18, 1978

FOR IMMEDIATE RELEASE

HIGH SCHOOL SPECIAL PROJECTS PROGRAM

Did you know that under Alberta Education's High School Special Projects Program, 4-H members can get credits towards a high school diploma by taking on a project, providing that:

- The project is approved by the school principal.
- The applicant is a registered high school student.
- The applicant is a member in good standing of a 4-H club.
- The project includes more work than would normally by required for a 4-H project.
- The student works with a teacher advisor. He can obtain additional advice from other individuals or groups.

A project which has been approved by the applicant's principal and planned with a teacher, and which clearly demonstrates the activities involved, could qualify for three credits if it represents approximately 75 hours of work or for five credits if it represents approximately 125 hours of work. Again, these hours of work should be in addition to the hours that would be involved in a regular 4-H project.

The idea of the High School Special Projects Program is to encourage young people to learn more about a subject that they are particularly interested in than would be possible under a regular school curriculum.

Details on the High School Special Projects Program can be obtained from local high school principals.

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Alberta

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December 18, 1978

FOR IMMEDIATE RELEASE

IRON IN WATER

by A. Flather
Alberta Agriculture's Engineering Technologist at Airdrie

One of the main causes of iron in rural water systems is iron bacteria. These bacteria cause the rapid deterioration of metal fittings and form a reddish-brown slime deposit on fixtures, which can impart an unpleasant taste and odor to water.

To deal with iron bacteria, a shock chlorination treatment is recommended for all but flowing wells.

Procedure for Shock Chlorination:

1. Clean the well thoroughly.
2. Mix up two gallons of household laundry bleach in 200 gallons of water.
3. Syphon this mixture into the well.
4. Open each faucet until a chlorine odor can be detected.
5. Allow the mixture to stay in the well and lines for at least eight hours.
6. Pump until the chlorine odor disappears. The chlorine mixture will not affect plant growth.
7. Backwash all filters and softeners and flush the hot water tank.

This procedure will only keep iron bacteria in check and will have to be repeated.

For further information on this subject or on other aspects of water and sewage systems, contact your regional engineering technologist.

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December 18, 1978

FOR IMMEDIATE RELEASE

SEMINAR ON THE PRODUCTION AND MARKETING OF ALBERTA FORAGE SEED

The Alberta Forage Seed Council invites anyone who is interested in forage seed production or marketing to attend a one-day seminar that will be held in the Traveller's Motor Hotel in Peace River on January 16, 1979.

Following is a list of topics that will be covered.

Inoculation of Legumes by Dr. Wendell Rice of the federal research station at Beaverlodge; Alberta Agriculture Forage Programs by Laurent Gareau of Alberta Agriculture; The Role of the Canadian Seed Growers' Association and SECAN by Ed McLaughlin of the Canadian Seed Growers' Association in Ottawa; Proposed Plant Breeders' Rights in Canada by Wilf Bradnock of Agriculture Canada's Plant Products Division, and Seed Markets in the United States and Europe by Frank Nemec of Frank Nemec Agricultural Consultants Ltd. in Montreal. There will also be a Western Seed Trade Panel (Alberta Branch) chaired by Don Macyk of Alberta Agriculure's international marketing division.

The registration fee for the seminar, which includes a noon lunch, is $10. Cheques should be made payable to Alberta Forage Seed Seminar and sent to Marcel Maisonneuve, Chairman, Alberta Forage Seed Council, Agriculture Building, 9718 - 107 Street, Edmonton, T5K 2C8.

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December 18, 1978

FOR IMMEDIATE RELEASE

FEEDLOT MANAGERS SEMINAR

A feedlot managers seminar will be held in Ponoka on January 12, 1979.

The following topics will be discussed:

- Starting Calves in the Feedlot
- Feedlot Diseases
- Nutrition
- Waste Management
- Confinement Feeding

Speakers will include local producers, Robin Elofson and Dave Arnold; Dr. Hironaka, Lethbridge Research Station; Dr.s Baker and Beck, Veterinary Service Division, Alberta Agriculture; Dr. Gary Harbin, Ponoka Veterinary Clinic; Dr. B. Young, University of Alberta; Robert Borg, regional engineer and Gary Bradshaw, regional economist, Alberta Agriculture.

There is a $15.00 registration fee (includes lunch), and the deadline for registration is January 10th.

Please forward registration to the District Agriculturist Office, Box 70, Ponoka, Alberta, and make cheques payable to the Agriculture Education Account.

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Alberta
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December 18, 1978

FOR IMMEDIATE RELEASE

RISK MANAGEMENT PACKAGE AVAILABLE

A package of slide-tape presentations on the risks involved in farm management decisions is now available from Alberta Agriculture's region extension offices.

The package was designed by the United States Department of Agriculture and has been adapted for use in Canada by Alan Hunt, Chuck Sterling and Harry Warne, all of Alberta Agriculture. It can be used either for a single presentation or as a series of presentations in workshops or seminars of such things as beef marketing and crop production. Alberta Agriculture's farm business management staff recommend that the presentations be supplemented with examples and illustrations that are applicable to the specific audience involved.

The package contains a trainer's manual and the following slide-tape presentations:

- "Dealing with Risk in Making Farm Decisions"—
  54 slides and one cassette tape
- "Considering your Attitudes in Making Risky Decisions"—
  69 slides and one cassette tape
- "Guiding Risky Decisions with a Payoff Matrix"—
  68 slides and one cassette tape
- "Using Probabilities in Making Farm Decisions"—
  166 slides, two cassette tapes, and a participant's workbook
- " Controlling Risk in Your Farm Business"—
  109 slides and one cassette tape

Further information on the contents of the package can be obtained from your regional farm economist or your local extension office. Anyone who is interested in purchasing the package for an institution should contact Harry Warne, Farm Business Management Branch, Alberta Agriculture, Box 2000, Olds, Alberta, TOM 1PO

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Alberta
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December 18, 1978

FOR IMMEDIATE RELEASE

TWO DAIRY FIELDMEN APPOINTED

Ed Bristow, head of Alberta Agriculture's dairy farm inspection branch, has announced the appointment of two regional dairy farm fieldmen.

They are John Elgersma, who replaces Ron Lehman in the Barrhead and North Edmonton district and Don Wallace who is filling in the Millet-Wetaskiwin area for Ron Becker who is completing his fourth year in agriculture at the University of Alberta. Mr. Lehman resigned to work on a dairy farm in the Fort Saskatchewan area.

Mr. Elgersma's and Mr. Wallace's duties include making sure that milk quality and dairy premises meet the standards set out for fluid milk production and providing guidance in the development and upgrading of dairy enterprises. They are also responsible for milking equipment installations, monitoring milk transportation, the handling of milk samples and helping industrial milk and cream producers who want to enter the fluid milk market through the Graduated Entry Program.

Mr. Elgersma was raised on a dairy farm in Holland and received his certificate for milking from an agricultural school. In 1964 he participated in the Young Farmers Exchange Program and worked for five months on a dairy farm in British Columbia's Fraser Valley. After that he managed his own dairy farm in Holland until 1974 when he emigrated to Canada. He then purchased a dairy farm in Alberta which he still has, and enrolled at Vermilion College. He graduated with a certificate in artificial insemination.

Mr. Wallace was raised on a mixed farm near Barrhead. After graduating from high school, he enrolled in the two-year Animal Production Technology Course at Vermilion College, graduating in 1976 with three scholarships. Since then he has worked for an alfalfa dehydrating plant and for the Barrhead District Co-op. In April of this year he returned to his father's farm and has been a full-time farmer until now.

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AGRI·NEWS

ON GIVING

You give but little when you give of your possessions.
It is when you give of yourself that you truly give.
For what are your possessions but things you keep and guard for fear you may need them tomorrow?
And tomorrow, what shall tomorrow bring to the overprudent dog burying bones in the trackless sand as he follows the pilgrims to the holy city?
And what is fear of need but need itself?
Is not dread of thirst when your well is full, the thirst that is unquenchable?

—From The Prophet by Kahlil Gibran

WITH BEST WISHES FOR A MERRY CHRISTMAS AND A HAPPY NEW YEAR FROM THE STAFF OF ALBERTA AGRICULTURE'S COMMUNICATIONS BRANCH

Alberta
AGRICULTURE
COMMUNICATIONS

Phone (403) 427-2127

December 25, 1978

FOR IMMEDIATE RELEASE

THE BARR COLONISTS–CHRISTMAS 1903

by Eric J. Holmgren
Heritage Historian, Provincial Archives of Alberta

Christmas 1903! To the Barr Colonists recently arrived from England the approach almost filled them with dread as it brought to mind associations of those left behind in England. Here they were isolated in a vast and to many, timeless land far from their relatives and old friends.

It was to be otherwise! The colonists had planned a Christmas celebration and this turned out to be so successful that no one had time for any thoughts of homesickness. But let Alice Rendell -- one of the colonists who was there -- tell it as she did in one of her delightful letters home:

> "I think as Christmas approached we all rather dreaded it knowing how this special season brings with it so forcibly the memory of all the home gatherings in the Old Country. Fortunately, we personally, are far too busy in our surroundings to brood over vain regrets and Christmas Day was upon us almost before we could realize the fact. There was service at 11:00 o'clock a.m. and at 5:00 p.m. the "Festivities" started. Thanks to the generosity of Mess. Hall Scott and Co., who have just completed a very large building for General Stores, the Gathering of Colonists took place there and it is certainly owing to their great kindness that our Crhistmas and New Year was spent so pleasantly and happily. The first item on the programme was a big feed followed by a capital concert divided into two parts. After the first half had been successfully carried through came a large Christmas tree very prettily decorated, the little gifts being distributed by an ideal "Santa Claus." I need scarecely say how delighted the little ones were. The whole proceedings were brought to a close about 11:30 p.m. after a most enjoyable social gathering and the first Christmas in Lloydminster is a thing of the past....The effect it had upon us was that we all felt cheered by this little excitement after all we had previously passed through...."

A similar celebration was held to welcome the New Year of 1904 and held at the same location. Again Alice Rendell:

- (cont'd) -

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The Barr Colonists--Christmas 1903 (cont'd)

> "The band consisted of several violins, two coronets, and harmonium. We started dancing at 8:30 p.m. and after a most enjoyable evening broke up at about 4:30 a.m. We all felt years younger. We wound up with Sir Roger (de Coverley) and Auld Lang Syne and walked back to Doris Court (the Rendell residence) in brilliant moonlight, arriving home as the clock struck 5:00 a.m."

So it was in those pioneer days, not only at Lloydminster, but everywhere in Alberta. Cold, snow and isolation there may have been, but the celebration of Christmas was a community affair that somehow bound the pioneers together and gave them a lift in morale and a new hope to face the coming year. Through it all, as in our own age, the message and thoughts of Christmas still glowed.

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FOR IMMEDIATE RELEASE

MISTLETOE

Did you know that there is a dwarf mistletoe that grows in Alberta? According to Herman Oosterhuis of Alberta Agriculture, it is a parasite that grows on lodgepole and jack pines although it has been found on scotch pine and white spruce. The dependency of this spindly plant on its host for support, water and most of its mineral and organic nutrients is reflected by its well-developed root system and the segmented branching of its aerial shoot which has barely distinguishable scale-like leaves. Dwarf mistletoe produces minute greenish-yellow flowers in April and May.

Dwarf Mistletoe

Did you also know that the hanging of mistletoe is a pagan custom that has come down through the ages? It was first practiced by the Druid priests who cut the mistletoe with a golden sickle and caught it in a white cloth when it fell from the tree. They then gave it to their followers to hang in their homes where its magical powers were supposed to bring peace, happiness and romance!

When enemies met by chance in ancient Scandinavia beneath a tree bearing mistletoe, they were obliged to disarm, embrace in friendship and keep the peace for the rest of that day. It may well be that the English custom of kissing u der the mistletoe comes from this legend.

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FOR IMMEDIATE RELEASE

THE MUSIC OF CHRISTMAS

by Hilda Ross

Christmas customs are as numerous and diversified as the countries from which they originate. The one that is common to almost every culture is the celebration of the birth of Christ through special music.

Christmas music has a character of its own -- it is happy and filled with hope. It can conjure up wonderful childhood memories: a Sunday School play depicting the Nativity; a school concert during which one of the "Three Kings" tripped over his robe while making an entrance; or perhaps a happy family gathering to decorate the tree. Christmas songs have come to us from many lands.

English-born poet James Montgomery wrote ***Angels from the Realms of Glory;*** Charles Wesley gave us ***Hark the Herald Angels Sing.*** ***Joy to the World,*** written by Isaac Watts, a native of Southampton, and set to a musical theme adapted from Handel's ***Messiah,*** is perhaps one of the most popular hymns of the Christmas season.

Cecile Frances Alexander, wife of the Primate of all Ireland wrote ***Once in Royal David's City*** for her Sunday School class. Set to music by organist Henry Gauntlett in 1848, it remains a children's favourite. The Welsh have given us ***Deck the Halls,*** but the history of its beginning is obscure.

Angels We Have Heard on High is translated from a perennially popular French carol. Unfortunately, the name of both poet and composer are unrecorded. There is also some doubt regarding the author of ***Oh Come All Ye Faithful.*** John Wade, who moved to France from England during the 1740's, and worked there as a music copyist, may have composed this hymn, for he signed the manuscript. Strangely, though, several copies of the words, all in Wade's handwriting, have been found in various places in England and Ireland. This carol's

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early and consistent popularity in France suggests also that it could have been written by an anonymous Frenchman, and that Wade's work as copyist may explain the reason for his signature.

Martin Luther, leader of the Protestant Reformation in Germany, is given credit for writing *Away in a Manger* and *Hark the Herald Angels Sing.* There are several other well-known carols of German origin.

There is a delightful story woven around the writing of *Silent Night,* in which Father Joseph Mohr, assistant parish priest at the Church of St. Nicholas in Oberndorf, a little village in the Austrian Alps, and his organist Franz Gruber, combined their talents in an hour of great need when the pipe organ rejected all efforts of repair. The two of them worked together, using a guitar for accompaniment. The result was *Stille Nacht* -- written, set to music, and sung at Midnight Mass on Christmas Eve, 1818. Some weeks later Karl Mauracher, organ builder and repairman, restored the St. Nicholas church organ to working condition and asked Gruber to try playing it. When Gruber played *Silent Night,* Mauracher was greatly impressed and asked if he might take the hymn to share with the musicians and singers of his home area in the Zillertal Valley. It was about 10 years later that he arranged the carol for four young voices and gave it to the Strasser children to sing. Their superb rendition soon made the carol popular throughout Austria and Germany. They were invited to perform for the King and Queen in the Royal Court Chapel in Pleissenburg on Christmas Eve, 1832. Several years later King Frederick William IV of Prussia expressed his wish that *Silent Night* be given top priority at all Christmas concerts in his c
domain, and it has remained in favor ever since.

Oh Little Town of Bethlehem was written by Phillip Brooks, a Bostonian Latin professor-turned-theologian, a year or two after he had travelled on horseback from Jerusalem to Bethlehem on Christmas Eve, 1865. It was his parting gift to the children of his congregation when he moved from his charge in Philadelphia back to Boston.

The Huron Carol, known as the first Canadian Christmas carol, has gained

The Music of Christmas (cont'd)

increasing popularity in Canada over the past three decades. It was written by the Jesuit Saint and Huron missionary, Jean de Brebeuf, in Quebec about 1641. After Brebeuf's martyrdom in 1649, Rev. Villeneuve, another missionary to the Hurons, wrote down the words of the hymn. It was later translated into French by Paul Picard, a lawyer and member of the Huron tribe. The popular English translation now used extensively was published in 1942 by the Canadian Messenger of the Sacred Heart.

When friends and families gather to sing the joyful Christmas songs and carols, they seldom pause to consider the origin of their selections. A few of the words may have been changed somewhat in translation, but the language of Christmas music is universal.

(Reprinted courtesy of the author and Heritage magazine)

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FOR IMMEDIATE RELEASE

HONEY FOR THE FESTIVE SEASON

by Dr. Ulf Soehngen
Supervisor of Apiculture, Alberta Agriculture

"Nature's own sweet" - honey - is the food produced by honeybees from the nectar of flowers and stored (instinctively) against future adverse conditions.

Not only bees, but many kinds of animals and human beings have prized the sweet, viscous liquid for millenia. In fact, until sugar became readily available, a century or so ago, honey was the only source of sweets known and was used, when it could be obtained, in various foods, in the production of alcoholic beverages, in the preservation of the dead and as a very valuable item in international trade.

Honey was also used, and still is, in certain parts of Europe and North America for the health giving properties attributed to it. An infusion of honey and the parts of certain plant species is considered to be especially effective against specific ailments. For example, onion, honey and sugar, boiled in water over a low flame for three hours, is said to be effective against intestinal ailments. A brew of honey and onion is said to relieve a sore throat, and a mixture of radish juice and honey is recommended by some for a cough and hoarseness.

It is only through research into the makeup of honey, done within the past 40 years, that we have become aware of the large number of biologically active materials, other than sugars, which are present in honey, usually in minute quantities. These include organic acids, minerals, several enzymes, vitamins, amino acids and proteins. Although these materials occur in quantities too small to make a significant contribution in terms of the normal nutritional requirements of most adults, they do add to the daily diet and should not be discounted.

Our modern fast pace of life does not encourage us to use honey in the preparation of festive dishes that may take several hours to prepare in an already crowded pre-holiday schedule. Still for those who feel somewhat more adventurous, the following Eastern European

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Honey for the Festive Season (cont'd)

recipes (selected for availability of ingredients and the relatively short time required for their preparation) may add some welcome variety to the holiday menu.

In the recipes that follow, 'one cup' equals 200 grams liquid measure.

If self-raising flour is used, omit the bicarbonate of soda.

In recipes requiring bicarbonate of soda, the soda should be neutralized by a tablespoon of vinegar or vodka.

Apple Cake

100 g (grams) clear honey
500 g apples (preferably a winter variety)
1 cup plain flour
1 tablespoon butter for greasing tins
½ cup sugar
100 g butter
½ teaspoon bicarbonate of soda
2 eggs

Add the honey, sugar and eggs to the softened butter and beat well. Sieve the flour and soda together and mix all the ingredients into a dough. Core, but do not peel, the apples, cut them up into small pieces and add to the dough. Fill buttered biscuit tins or patty pans with the mixture and bake in a moderate oven (170°C or 350°F).

Armenian Gozinakh

500 g shelled walnuts
500 g honey
100 g sugar

Boil the honey and sugar together. Sprinkle the lightly roasted and finely chopped walnut meats into the syrup and boil for 15 minutes. While still hot, place in a dish and sprinkle with cold water, level the surface and leave to cool. Then warm the dish, remove the gozinakh, cut into diamond-shaped pieces and arrange on a plate. Almonds may be used instead of walnuts.

Honey Baba
(Steamed cheesecake with honey and nuts)

200 g cottage cheese
100 g honey
1 egg
20 g butter
20 g plain flour
30 g shelled walnuts (ground)
10 g sugar

- (cont'd) -

Honey for the Festive Season (cont'd)

Honey Baba (cont'd)

Warm the honey and add the lightly dried ground walnuts, egg yolk, flour and butter. Beat thoroughly. Pass the curd through a sieve and mix with the other ingredients. Carefully fold in the beaten egg white. Place the mixture in buttered metal cones or cylindrical tins, sprinkled with sugar. Steam until ready. When cooked pour warmed honey over the cake and serve. Makes two babas.

Tajik Corn Puffs

1 kg popping corn
1 cup honey

Pop the corn in a popping basket or pan. Mix the popcorn with the honey and form into balls the size of an apple.

Hungarian Nut Cookies

300 g plain flour
140 g honey
100 g butter
80 g ground walnuts
1 tablespoon rum
whites of three eggs
yolk of one egg
grated dried peel of one lemon
juice of one lemon
bicarbonate of soda

Rub the butter into the flour and add the honey, egg yolk, egg whites, ground walnuts, lemon peel, lemon juice, rum and a pinch of soda. Knead the mixture well, roll out and cut into shapes or rounds. Bake until a golden brown. When cold the cookies can be iced with a chocolate icing and decorated with half a shelled walnut.

Honey Puffs with Nuts

5 tablespoons honey
1 cup chopped walnuts
1 teaspoon bicarbonate of soda
plain flour
1 cup icing sugar
5-6 cloves, ground
3-4 black pepper corns, ground
½ teaspoon cinnamon

Mix the honey with the icing sugar and add the chopped walnuts, soda, spices and sufficient flour to make a fairly thick dough. Shape into balls the size of a walnut. Place on a greased and floured baking sheet and bake in a moderately hot oven.

Central Asian Bal

In many of the languages of Central Asia, bal means honey, or drinks made from honey. For one litre of bal, you will need the following:

125 g honey
25 g cinnamon
5 g cloves
1 litre water
5 g ginger
¼ bay leaf
0.25 g black pepper

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Honey for the Festive Season (cont'd)

Central Asian Bal (cont'd)

Put the spices and bay leaf in hot water and bring to the boil. Remove from the flame, cover tightly and leave to infuse for five to ten minutes. Then add the honey, mix thoroughly and strain. Serve hot.

Hungarian Honey Cream

4 tablespoons fresh cream
2 tablespoons honey
2 liqueur glasses of brandy

Fill a glass a quarter full with crushed ice. Pour in the honey, brandy and cream. Shake well to mix and serve.

Honey Grog

75 g brandy
slice of lemon
20 g honey

Put the honey in a warmed glass, add the brandy and fill up with boiling water. Add the slice of lemon.

Moldavian Honey Wine

For one serving:

70 g white wine
80 g soda water
1 g citric acid (or lemon juice)
30 g honey
20 g ice

Add the honey and citric acid to the white wine and bring to the boil. Cool, add the ice and splash in the soda water.

MERRY CHRISTMAS!

FOR IMMEDIATE RELEASE

GIVE A BONSAI BOOK FOR CHRISTMAS

Chistmas is an ideal time to give a favorite gardening friend a book on bonsai. Through such a book you can start your friend on a hobby that will prove fascinating for many years.

Chris Campbell, horticultural specialist with Alberta Agriculture, says you can use any small-leaved deciduous tree (one that sheds its leaves) or an evergreen to make a bonsai. She also says that the best way to become acquainted with the art of bonsai is to observe trees growing in their natural environment.

This Chinese elm, grown from seed, is a good example of a carefully pruned and wired bonsai.

Old trees display the venerable characteristics that people strive for in bonsai. A heavy tapering trunk, for example, gives the impression of strength and grace. Visible surface roots show a strong grip on the earth and drooping branches suggest age. Rugged form also suggests age and old scars tell many stories. Thick bark and a gnarled trunk show character and maturity, while a crown shaped by the wind gives individuality and distinction to the tree.

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Give a Bonsai Book for Christmas (cont'd)

You can train a young tree, regardless of its size, to reproduce the above characteristics in miniature through the art of bonsai. The first step is to examine the roots to establish a frontal position for the tree. Next, examine the trunk and branches to decide what shape or style seems to be inherent in the tree. It is also a good idea to make a sketch of the artistic outline that is suggested by the young tree's potential. Then prune and shape it accordingly.

Remove the foliage growing on the inner branches near the trunk to give the impression of maturity. This type of foliage is typical of a young tree. Then use copper wire to mold the shape of the tree, being careful not to wind the wire too tightly or you will damage its bark. The copper wire should be placed through the drainage hole of the pot to secure the tree. The wire usually has to be removed in six to 12 months to prevent the branches from growing into the wire as they increase in size.

Before potting the tree, remove long or damaged roots with sharp pruning sheers and a clean downward cut. The use of potting soil that has been specially modified so that it consists of particles about the size of rice grains is fundamental to growing bonsai trees. It is this granular property, obtained by screening all the fine particles out of the soil, that allows for perfect drainage and aeration. Gravel or sand and humus are added to maintain the soil structure. This mixture encourages a compact fibrous root system which is essential for healthy plant growth in a restricted space. A light sprinkling of top soil on the surface of the other soil will provide ideal growing conditions for moss and lichens. Both are used to give a realistic effect to the tree as well as to clearly delineate its surface roots.

The correct choice of a bonsai pot, which comes in various shapes, sizes and colors, will enhance the appearance of the tree. As a general rule, bonsai trees look best when

- (cont'd) -

Give a Bonsai Book for Christmas (cont'd)

placed off-center in the pot. Visual balance is often achieved through the use of asymmetry.

How does a bonsai tree remain small and retain its perfect shape? Both these phenomena are attained by trimming and pinching back new growth during the spring and summer. Techniques vary with different species. In the case of junipers, the new scale-like shoots are simply pinched off as they appear. Pine trees are "inched-in" in the spring and fall. The fall pinching is done on alternative years, and then only when the tree is in a strong condition. Pines normally produce one bud per shoot, each of which is removed. Several new buds grow in the place of every bud that is removed, and these begin to elongate the following spring. At this stage they are broken to about half or a third of their length. Pinching off the original buds and breaking off the new elongated buds result in short tidy needles, plentiful branches and shapely masses of foliage.

There are many other ways that excitement and interest in bonsai can be developed. Nature leaves many imprints on her trees and these can be authentically reproduced in bonsai by the person who observes, studies and understands the vagaries of nature.

Although making a young tree into a bonsai takes only a very short time, a bonsai is never really finished. It will continue to take on new forms according to the nature of the tree and its future training.

Books on this increasingly popular hobby are available from many bookstores. The larger ones are often able to special-order some of the older titles.

Two good books for beginners are: "The Japanese Art of Miniature Trees and Landscapes" by Yuji Yoshimura and Goivanna Halford. Originally published by Charles E. Tuttle in 1957, the book is now available from Symmes Systems, Box 8108, Atlanta, GA 30306. Another book that is recommended for beginners is "Bonsai Trees and Shrubs" by Lyn R. Perry (The Ronald Press, 1964). This book is often used as a textbook for bonsai classes.

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Give a Bonsai Book for Christmas (cont'd)

Some of the best and least expensive literature available for beginners is in the horticultural handbooks offered by the Brooklyn Botanic Garden, 1000 West Washington Avenue, Brooklyn, NY 11225. Three that make nice gifts are No. 13 "Dwarfed Potted Trees -- The Bonsai of Japan" (first published in 1953), No.51 "Bonsai: Special Techniques" (1966) and No. 81 "Bonsai for Indoors" (1976). The cost of these handbooks is very nominal.

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FOR IMMEDIATE RELEASE

YULE LOG SUPERSTITIONS

The yule log, long associated with Christmas, has many quaint superstitions associated with it, some of which are agriculturally oriented.

The custom of burning a yule log was widespread in Europe during the Middle Ages and was especially prevalent in France and England and among the southern Slavs.

In France, the trefoir, as the yule log was called in many places, was put on the fire for the first time on Christmas Eve, and then removed so that it could be put back on the fire for a little while each day until Twelfth Night. The remains of the log were then kept under the bed for the rest of the year in the belief that they would protect the house and its occupants from fire and thunder.. They were also supposed to prevent the householders from having chilblains during the winter. The French farmers believed that if the cows drank water in which the log had been steeped, they would be cured of any sickness, and that they would have no difficulty in calving. These farmers often scattered the ashes of the yule log on their fields to protect their wheat against mildew.

The customs were similar in England where the ritual of bringing in the yule log is still practised today. The log, called a yule log or Christmas block, was laid on the fire and large Christmas candles were lit to symbolically turn night into day. The log was always started with a small piece of the previous year's log which it was believed kept spirits away and protected the house from fire and lightening.

In some parts of central Germany, the yule log was fitted into the floor of the hearth where it glowed. When the new log was brought in the following Christmas, the remains of the old one were ground to powder and scattered over the fields to promote crop growth. In some villages the log was withdrawn from the fire when it was slightly charred and kept so that it could be put on the fire whenever there was a thunderstorm in the belief that lightening

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Yule Log Superstitions (cont'd)

would not strike a house that had a smoldering yule log.

The burning of the yule log is still practised with great solemnity among some southern Slavs. Here they are said to believe that they will have as many calves, piglets, lambs and kids (goats) as they strike sparks out of the burning log. Some farmers carry a piece of the log to their fields to protect their crops against hail.

Since yule logs were usually oak, the idea of keeping the remains throughout the year to protect the house against fire and lightening could have come from the ancient Aryan creed that connected the oak tree with the god of thunder. It is also possible that the fertilizing and curative properties ascribed to the ashes of a yule log may have been handed down from this ancient source.

December 25, 1978

FOR IMMEDIATE RELEASE

CATNIP

Are you wondering what to get your pet cat for Christmas? Why don't you start a catnip plant for him?

According to Alberta Agriculture's horticultural specialist, Chris Campbell, catnip *(Nepeta cataria)* is a perennial herb that can be grown in a pot indoors or outside in the garden. Cats love it, and it makes them playful and kittenish. It is good for you too. When used as a tea, it has a very soothing effect and its flavor is similar to that of mint tea, but a little more pungent.

Catnip also has a mint-like scent. Its heart-shaped leaves have toothed edges and are dove-grey underneath. The tips of the stems produce spikes of lavender or white flowers in early summer.

If you start your catnip plant now, you will have to use seed unless you are lucky enough to have a friend who has a plant growing indoors. In which case, you can ask for a stem cutting and put it in a moist, sandy soil mixture. Catnip can also be started from a piece of root. The seed is available from most seed specialty stores.

Catnip seed can be planted in the garden either in the early spring or in the fall. It likes a rich, moderately moist soil and will thrive in full sunshine or partial shade. It can reach a height of two to three feet, and grows vigorously under Alberta's climatic conditions. It does not winterkill.

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CHRISTMAS PRESENTS THAT ARE DIFFERENT

Are you interested in a last minute Christmas present that is different? Following are some suggestions from the Alberta Safety Council.

. Defensive Driving Course Gift Certificates. These certificates can be obtained from the Alberta Safety Council (10526 Jasper Avenue, Edmonton -- Telephone 428-7555) and can be used in over 80 centres throughout the province where defensive driving courses are given. The price of a certificate is $15.

. Smoke Detector. Smoke detectors can be obtained from department stores and they range in price from about $23 to $35.

. Fire Extinguisher. A fire extinguisher makes a good gift to people who own their own home or who have a cottage, camper, boat or any other type of motor vehicle. Fire extinguishers can be obtained from department stores, safety supply stores and some hardware stores. They cost anywhere from $35 up.

. Gun Rack or Gun Cabinet. Gun racks can be obtained from most large department stores or from a gunsmith. A cabinet that locks is a good idea from a safety point of view. The price of a gun rack ranges from about $20 up. A cabinet would be in the same price range as a piece of furniture of similar size.

. Bars for the bathtub and toilet area. These, and rubber bathtub mats, make ideal gifts for an elderly person or for a person who is not very mobile. The bars can be obtained from a store that supplies plumbing fixtures and the mats are available from department stores.

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FOR IMMEDIATE RELEASE

BAKEABLE PLAYDOUGH

Here is a recipe for playdough that does not loose its shape when baked. It was submitted by Betty Birch, Alberta Agriculture's district home economist at Stettler, and can be used for making Christmas ornaments, etc.

Mix one cup of salt with two cups of flour. Add one cup of water -- a little at a time. Knead the dough for seven to 10 minutes or until it is smooth and like putty. Then roll it until it is about a quarter of an inch thick, and cut it with a cookie cutter or into any shapes you want. Bake the dough at 325° F until it is light brown. When it has cooled, you can paint or varnish it. If you want to hang the ornament up, be sure to leave a hole.

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FOR IMMEDIATE RELEASE

A FARCE ON A FAIRY TALE

— Or You Just Can't Win Anymore

Once upon a time Little Red Riding Hood's mother told her to take a basket of goodies to sick, old grandmother.

Little Red Riding Hood, a polite little girl, asked "What's in the basket, mother, dear?"

"I baked a lovely yellow-frosted cake with artificial sweetener so grandmother won't get fat. And I packed some bacon and bologna to make sure she gets her protein," answered mother.

"But artificial sweetener causes cancer in rats, and so do the nitrite and the red dye in bacon and bologna," protested Little Red Riding Hood. "And the yellow dye you put in the frosting causes blindness in dogs."

"Nonsense. Your grandmother is neither a rat nor a dog," scolded mother. "Now off with you."

So Little Red Riding Hood put on her red cloak treated with Tris, a chemical that's bad for children whether they're polite or not.

On the way to grandmother's house, Little Red Riding Hood met a wolf who acted as friendly as a door-to-door salesman. But all the while he was chatting with Little Red Riding Hood he was thinking unfriendly thoughts.

"After I eat grandmother, this plump creature will be a tasty dessert," he thought.

The foolish wolf didn't know that plump people aren't really good for you because they make your cholesterol count go up, and high cholesterol can cause heart attacks and strokes, you know.

The wolf told Little Red Riding Hood he would keep her company part of the

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A Farce on a Fairy Tale (cont'd)

way. As he trotted through the woods with her, he lit a cigaret.

"Oh, Mr. Wolf, don't you know smoking causes lung cancer in people?", asked Little Red Riding Hood.

Chortled the wolf, "Ain't it lucky I'm not a people? And instead of worrying about me, kid, why don't you pick some posies for grandma?"

While Little Red Riding Hood was gathering flowers, the wolf raced to grandmother's, wheezing and coughing all the way. As soon as grandmother opened the door, he gobbled up the poor old woman. Then he put on her nightdress and cap and got into bed. Immediately he had a severe attack of indigestion because he hadn't chewed 25 times before he swallowed.

A few minutes later Little Red Riding Hood entered. She thought grandmother looked odd.

"Oh, grandmother, what big eyes your have."

"The better to fill out my medicare application, my dear."

"Oh, grandmother, what big teeth you have."

"The better to be a better consumer, my dear."

And the wolf sprang out of bed and consumed Little Red Riding Hood in one gulp.

But all was not lost because along came a hunter who cut open the wolf and freed grandmother and Little Red Riding Hood.

And Little Red Riding Hood lived happily ever after, but the wolf sued the hunter for performing surgery without a license.

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